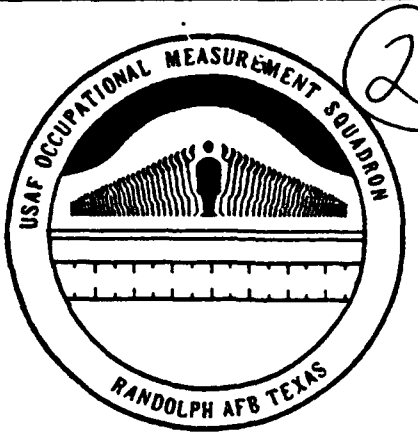

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UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

AIRCRAFT COMMUNICATION AND NAVIGATION SYSTEMS AND COMMUNICATION AND NAVIGATION SYSTEMS

AFSCs 2A4X2 AND 2A1X3 (FORMERLY AFSCs 453X2 AND 455X2)

AFPT 90-455-876

JANUARY 1994

OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION and TRAINING COMMAND
1550 5th STREET EAST
RANDOLPH AFB, TEXAS 78150-4449

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332 TTS/TTOT (613 HANGAR ROAD, ROOM 131, KEESLER AFB MS 30534-2217)	2	1*	1*	2
375 MS/MAMTI	1			

*INCLUDES ONE EACH FOR AFSC 2A4X2 AND 2A1X3

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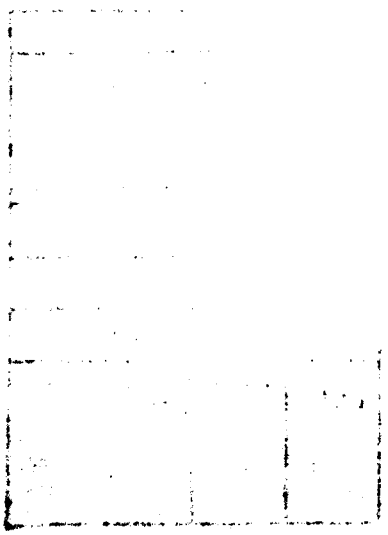

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PREFACE

This report presents the results of a detailed Air Force (AF) Occupational Survey of the Communication and Navigation Systems career ladder (Air Force Specialty Codes (AFSCs) 2A4X2 and 2A1X3 (formerly 453X2 and 455X2, respectively)). Authority for conducting occupational surveys is contained in AFR 35-2. Computer products upon which this report is based are available for the use of operations and training officials.

The survey instrument was developed by Chief Master Sergeant Jeffrey L. Milligan, Inventory Development Specialist, Ms Cynthia V. Luster, Occupational Analyst, analyzed the data and wrote the final report. Mrs Olga Velez provided computer programming support, and Ms Raquel A. Soliz provided administrative support. This report has been reviewed and approved by Major Randall C. Agee, Chief, Airman Analysis Section, Occupational Analysis Flight, USAF Occupational Measurement Squadron (USAFOMS).

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to the USAF Occupational Measurement Squadron, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph Air Force Base, Texas 78150-4449 (DSN 487-6623).

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SUMMARY OF RESULTS

1. *Survey Coverage* This is the first survey of the Communication and Navigation Systems career ladder since implementation of the Rivet Workforce initiative of the late 1980's, wherein AFSCs 328X0 (Avionic Communications), 328X1 (Avionic Navigation Systems) and the doppler portion of 328X4 (Avionic Inertial and Radar Navigation Systems) were merged into AFSC 455X2A/B/C (Communication and Navigation Systems). This survey was initially intended to evaluate changes in the career ladder, since implementation of the Rivet Workforce initiative and subsequent changes following the Chief of Staff of the Air Forces' reorganization and year of training initiatives; and to obtain current task and equipment data for use in evaluating current training programs. Since that time, this report took on two additional purposes, that of addressing the restructuring of the 455X2 career field (to encompass on- and off-equipment maintenance) and the creation of AFSC 453X2 (to encompass only on-equipment maintenance). Effective 31 October 1993, AFSC 455X2 became 2A1X3 and AFSC 453X2 became 2A4X2 to conform to the new enlisted specialty coding nomenclature. This report addresses survey data in terms of the two separate AFSCs; an on-equipment maintenance AFSC 453X2 (currently 2A4X2) and an on- and off-equipment maintenance AFSC 455X2 (currently 2A1X3). Survey results are based on responses from 1,974 respondents (62 percent of the total assigned personnel selected for survey). All major using commands are well represented in the survey sample.

2. *Specialty Jobs*: Three clusters and four independent jobs were identified in the sample. Two of the clusters were directly involved in performing the technical tasks pertaining to maintenance on communication and navigation systems. One cluster aligned with the restructured on- and off-equipment maintenance career ladder, AFSC 2A1X3 (formerly AFSC 455X2), and the other with the newly created on-equipment maintenance career ladder, AFSC 2A4X2 (formerly AFSC 453X2). The third cluster reflected a combination of technical, managerial, and supervisory jobs. The remaining four independent jobs are nontechnical functions and are performed across both maintenance operations.

3. *Career Ladder Progression*: Personnel at the 3- and 5-skill levels perform many tasks in common, and both groups spend the vast majority of their relative job time on technical communication and navigation systems maintenance tasks. At the 7-skill level, although members still perform a substantial amount of routine day-to-day technical maintenance, a shift toward supervisory functions is evident.

4. *AFR 39-1 Specialty Descriptions*: All descriptions accurately depict the nature of the respective jobs.

5. *Training Analysis*: The Specialty Training Standards (STSs) are generally supported by survey data. A recent Utilization and Training Workshop (U&TW) used preliminary findings from this survey to validate their new STSs and to identify requirements for 7-skill level training.

6. *Implications*: With survey data supporting the restructuring of AFSC 2A1X3 (formerly 455X2) and the creation of AFSC 2A4X2 (formerly 453X2), possible adjustments or refinements to training documents and training curriculum appear warranted. Data from this survey should be useful in refining the new courses for both AFSCs.

OCCUPATIONAL SURVEY REPORT
COMMUNICATION AND NAVIGATION SYSTEMS CAREER LADDER
(AFSCs 2A4X2 and 2A1X3, formerly 453X2 and 455X2, respectively)

INTRODUCTION

This is a report of an occupational survey of the Communication and Navigation Systems career ladder completed by the USAF Occupational Measurement Squadron. In order to understand the implications of the changes in this career field, it is necessary to provide a few historical facts as to the origins of the current AFSC structure. A Rivet Workforce initiative directed the merger of AFSCs 328X0 (Avionic Communications), 328X1 (Avionic Navigation Systems), and the doppler portion of 328X4 (Avionic Inertial and Radar Navigation Systems) into AFSC 455X2A/B/C (Communication and Navigation Systems), effective 31 October 1988. AFSC 455X2A/B/C held the shred designations of: A-MAC, B-SAC, and C-TAF. HQ AETC/TTOA, Randolph AFB, Texas, requested this survey to review the structure of the career field after the Rivet Workforce changes of October 1988 were implemented. Since the initial request letter, a Utilization and Training Workshop (U&TW) convened on 13 August 1991, and it was decided to restructure AFSC 455X2A/B/C, to rename it AFSC 455X2, and to create a new AFSC 453X2. This change, which became effective 31 October 1992, addresses the changing needs of an Air Force forced to operate with reduced budgets and weapons systems, and addresses the need to convert to an on- and off-equipment maintenance concept. On 31 October 1993, these AFSCs were directly converted to 2A4X2 and 2A1X3 (formerly 453X2 and 455X2, respectively) to conform to the new enlisted specialty coding nomenclature. With the restructuring of AFSC 455X2A/B/C, all suffix identifiers were eliminated. An indirect conversion from each suffix to the respective new 2A4X2 AFSC or to the restructured 2A1X3 AFSC was implemented. The newly created AFSC 2A4X2 identifies the on-equipment functions. The restructured AFSC 2A1X3 serves two purposes: first, for those organizations who use separate on- and off-equipment maintenance concepts, this structure identifies the off-equipment side; and secondly, for those organizations needing dual-qualified personnel, this structure identifies the on- and off-equipment side. The titles for the new specialties are "Aircraft Communication and Navigation Systems" (AFSC 2A4X2) and "Communication and Navigation Systems" (AFSC 2A1X3). The results of the last surveys pertaining to this combined career ladder were published in March of 1989 for AFSCs 328X0 and 328X1, and in June 1984 for AFSC 328X4.

Background

As described in AFR 39-1 Specialty Descriptions, dated October 1992, personnel in AFSC 2A4X2 are responsible for performing organizational maintenance on aircraft communication and navigation systems. Personnel in AFSC 2A1X3 are responsible for performing intermediate and organizational maintenance on communication and navigation systems and automatic test equipment.

Primary entry into the AFSC 2A4X2 career ladder is from Basic Military Training School (BMTS) through a 104-day course conducted at Keesler AFB MS. Current ABR training provide[illegible]inciple-centered training in the performance of organizational maintenance of aircraft communication and navigation systems. Training also includes: application of electronic principles, circuit analysis, and circuit testing; flightline practices including tuning, adjusting, performance testing, and troubleshooting using selected command representative avionic systems with associated Technical Orders (TOs) and equipment; and use of maintenance and inspection forms and tags, AFTOs, safety and security directives. Training is provided on the following pieces of equipment: very-high frequency (VHF) radios (AM and FM), ultra-high frequency (UHF) and high frequency (HF) radios, interphone equipment, VHF omnirange (VOR)/instrument landing system (ILS), tactical air navigation (TACAN), radar altimeters, identification friend or foe (IFF) transponders, search and weather radar, and doppler navigation systems and global positioning systems (GPS). Performance-oriented core automated maintenance system (CAMS) training is taught under maintenance data collection (MDC). Entry into the career ladder currently requires an Armed Services Vocational Aptitude Battery (ASVAB) Electronic score of 67.

Primary entry into the AFSC 2A1X3 career ladder is from BMTS through a 154-day course conducted at Keesler AFB MS. Current ABR training provides principle-centered training in operation, organizational maintenance and repair of avionic communication, radar and radio navigation equipment. Training also includes: application of electronic principles; circuit analysis and testing; shop and flightline practices including tuning, performance testing, and troubleshooting of command representative avionic equipment; use of maintenance and inspection forms and tags; safety and security directives; and AF TOs. Training is provided on the following pieces of equipment: VHF radios (AM and FM), UHF, and HF radios, interphone equipment, VOR/ILS, TACAN, radar altimeters, IFF transponders, search and weather radar, and doppler navigation systems. Performance-oriented CAMS training is taught under MDC. Entry into the career ladder currently requires an ASVAB Electronic score of 67.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) AFPT 90-455-876, dated February 1992. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, tasks from the previous survey instruments, and data from the last Occupational Survey Reports (OSRs) for AFSCs 328X0, 328X1, and portions of 328X4. The preliminary task list was refined and validated through personal interviews with 50 subject-matter experts (SMEs) selected to cover a variety of major commands (MAJCOMs) at the following operational bases:

BASE	REASON FOR VISIT
Kirtland AFB NM	Maintains C-130s and four different types of helicopters. The home of 1550 CCTW. Represents on- and off-equipment maintenance concept.
Davis Monthan AFB AZ	Home of 355 TTW where A-10 pilots are trained. Members are responsible for locating faulty units and for sending them to shop; however, there are no members in the shop - personnel in other integrated avionics AFSCs repair units. Represents on- and off-equipment maintenance concept.
Hurlburt Field FL	AFSOC base, members are specialized as on- or off-equipment maintenance, but are rotated between flightline and shop. Dual-qualification for greater flexibility when deployed is a by-product of this concept.
Travis AFB CA	Typical user of on- and off-equipment maintenance concept. Fly C-141s and C-5s.
Beale AFB CA	Base flying the U-2 and KC-135. Typically have no one doing off-equipment work. Have three intermediate level maintenance squadrons (ILMSs) that perform their shop maintenance.

Castle AFB CA	Base flying B-52s and KC-135s, also has an ILMS located on base.
Bergstrom AFB TX	Fly F-4s and RF-4Cs.
Tinker AFB OK	Home of 552 AWAC wing. Major difference is not the type of equipment, but the amount of communications equipment on aircraft. Only unit that repairs datalink equipment.

The resulting JI contained a comprehensive listing of 896 tasks grouped under 17 duty headings and a background section requesting such information as grade, duty title, level of maintenance performed, aircraft on which maintenance is performed, type of equipment used, and a question pertaining to electronic principles employed.

Survey Administration

From May through October 1992, Military Personnel Flights (MPFs) at operational units worldwide administered the inventory to military job incumbents holding DAFSCs 45532A/B/C, 45552A/B/C, and 45572A/B/C. Job incumbents were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Armstrong Laboratory/Human Resources Directorate (AL/HRD).

Each individual who completed the inventory first completed an identification and biographical information section, and then checked each task performed in their current job. After checking all tasks performed, each member then rated each of these tasks on a 9-point scale, showing relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount time spent) through 5 (about average time spent) to 9 (very large amount spent).

To determine relative time spent for each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of their time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time for each task. This procedure provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

Survey Sample

Personnel were selected to participate in this survey so as to ensure an accurate representation across MAJCOMs and military paygrade groups. All eligible DAFSC 45532, 45552, and 45572 personnel were mailed survey booklets. The 1,974

respondents in the final sample represent 62 percent of the total assigned personnel and 67 percent of the total personnel surveyed. Table 1 reflects the paygrade distribution for these personnel. As reflected in this table, the survey sample is an accurate representation of the career ladder population.

Task Factor Administration

While most participants in the survey process completed a JI, selected senior DAFSC 45572 personnel were asked to complete booklets rendering judgements on task training emphasis (TE) or task difficulty (TD). The TE and TD booklets were processed separately from the JIs. The information gained from these task factor booklets is used in various analyses and is a valuable part of the training decision process.

Since the survey was administered from May to October 1992 and the restructuring of AFSC 2A1X3 (formerly 455X2) and the creation of AFSC 2A4X2 (formerly 453X2) were not effective until 31 October 1992, TE and TD data were collected based on the shred held by the individual during the time the questionnaires were in the field. A manual search was made to determine the maintenance level of each respondent, based on background information included in the JI. We were able to distinguish between former 453X2 AFSC NCOs performing on-equipment maintenance only and former 455X2 AFSC NCOs dual-qualified to perform both off-equipment and on- and off-equipment maintenance. As a result, TD data for the complete survey sample and TE data for AFSC 2A4X2 and for AFSC 2A1X3 are made possible.

Task Difficulty (TD). Each individual completing a TD booklet was asked to rate all of the tasks on a 9-point scale (from extremely low to extremely high) as to the relative difficulty of each task in the inventory. Difficulty is defined as the length of time required by the average incumbent to learn to do the task. TD data were independently collected from 112 7-skill level personnel stationed worldwide. One rating policy was found and interrater reliability was determined to be excellent, which reflects a strong agreement among all 112 7-skill level raters (regardless of assignment to AFSCs 2A1X4 or 2A1X3). Ratings were standardized so tasks have an average difficulty of 5.00, with a standard deviation of 1.00. The resulting data yield a rank ordering of tasks indicating the degree of difficulty for each task in the inventory.

Training Emphasis (TE). Individuals completing TE booklets were asked to rate tasks on a 10-point scale (from no training required to extremely high amount of training required). TE is a rating of which tasks require structured training for first-enlistment personnel. Structured training is defined as training provided at resident technical schools, field training detachments (FTDs), mobile training teams (MTTs), formal OJT, or any other organized training method. TE data were independently collected from 66 experienced 7-skill level personnel stationed worldwide. Two specific rating policies for TE were found. One rating policy, made up of 32 senior NCOs, defined an on-equipment maintenance philosophy reflective of AFSC 2A4X2

TABLE 1

PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

PAYGRADE	COMBINED 453X2/455X2 PERCENT ASSIGNED* (N=3,170)	COMBINED 2A4X2/2A1X3 PERCENT IN SAMPLE (N=1,974)
E-1 to E-3	19%	21%
E-4	30%	27%
E-5	26%	25%
E-6	16%	18%
E-7	9%	9%
E-8	-	-

* Assigned strength as of April 1992

- Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

(formerly 453X2). A second policy, comprised of 34 senior NCOs, addressed the on- and off-equipment maintenance philosophy reflective of AFSC 2A1X3 (formerly 455X2). The interrater reliability for these two policies was acceptable, indicating satisfactory agreement among raters within each group as to which tasks required some form of structured training and which did not. In this specialty, tasks addressing an on-equipment maintenance philosophy (AFSC 2A4X2) had an average TE rating of .93 with a standard deviation of 1.42; tasks considered high in TE have ratings of 2.35 and above. Tasks addressing an on- and off-equipment maintenance philosophy (AFSC 2A1X3) had an average TE rating of 3.12 with a standard deviation of 1.70; tasks considered high in TE have ratings of 4.82 and above. As was discussed in the *Task Difficulty (TD)* section, TE rating data may also be used to rank order tasks indicating those tasks which senior NCOs in the field consider the most important for the first-enlistment airman to be trained to perform.

When used in conjunction with the primary criterion of percent members performing, TD and TE ratings can provide insight into first-enlistment personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting entry-level jobs.

SECTION I

SPECIALTY JOBS
(Career Ladder Structure)

A USAF Occupational Analysis begins with an examination of the career ladder structure. The structure of jobs within the Communication and Navigation Systems career ladder was examined on the basis of similarity of tasks performed and the percent of time spent ratings provided by job incumbents, independent of other specialty background factors.

Each individual in the sample performs a set of tasks called a *Job*. For the purpose of organizing individual jobs into similar units of work, an automated job clustering program is used. This hierarchical grouping program is a basic part of the Comprehensive Occupational Data Analysis Program (CODAP) system for job analysis. Each individual job description (all the tasks performed by that individual and the relative amount of time spent on those tasks) in the sample is compared to every other job description in terms of tasks performed and the relative amount of time spent on each task in the JI. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time ratings and combine them to form a composite job description. In successive stages, new members are added to initial groups, or new groups are formed based on the similarity of tasks performed and similar time ratings in the individual job descriptions.

The basic identifying group used in the hierarchical job structuring process is the *Job*. When there is a substantial degree of similarity between Jobs, they are grouped together and identified as a *Cluster*. Specialized jobs too dissimilar to fit within a cluster are labeled *Independent Jobs (IJs)*. The resulting job structure information (these varying jobs within the career ladder) can be used to evaluate the accuracy of career ladder documents (AFR 39-1 Specialty Descriptions and Specialty Training Standards) and to gain a better understanding of current utilization patterns. The above terminology will be used in the discussion of the AFSC 2A4X2 and 2A1X3 career ladder structures.

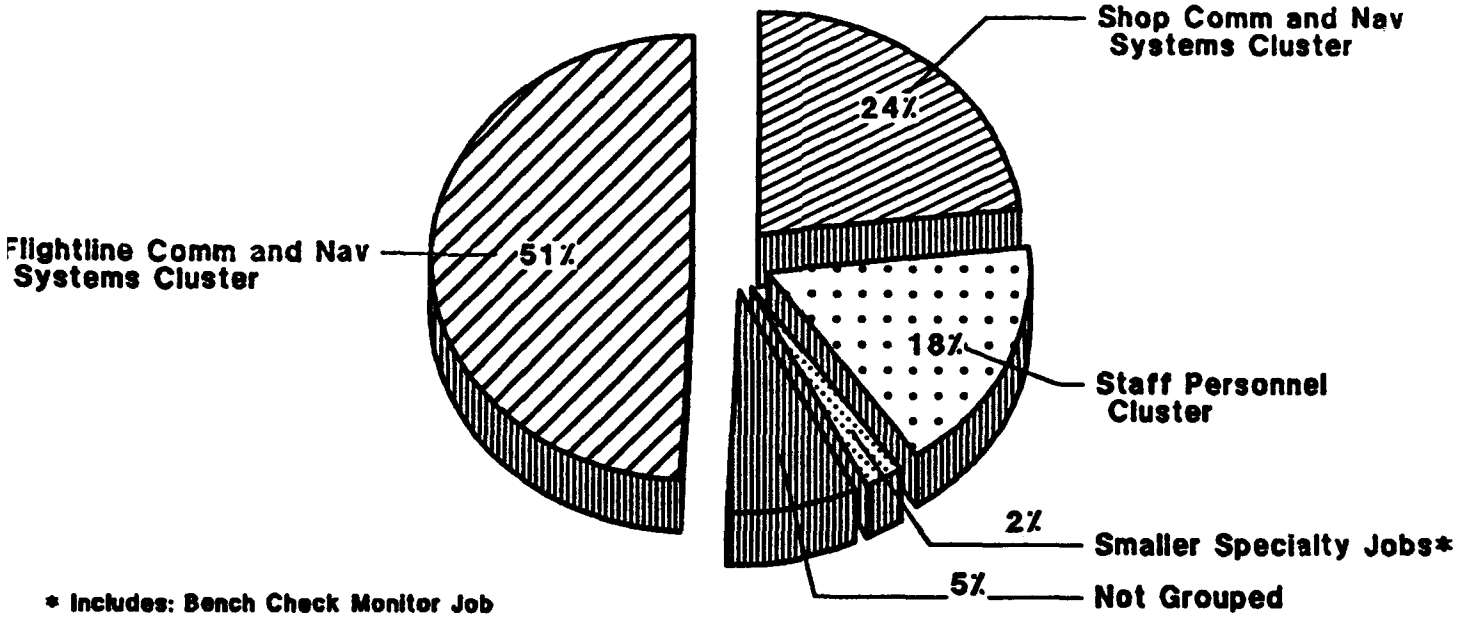
Overview of Specialty Jobs

Structure analysis identified three job clusters and four IJs within the survey sample. The Flightline Communication and Navigation Systems and the Shop Communication and Navigation Systems clusters, accounting for 75 percent of the survey sample (51 percent and 24 percent, respectively), identify the technical AFSC-specific on- and off-equipment maintenance performed. The remaining Staff Personnel cluster accounts for 18 percent of the survey sample. Two percent of the survey sample is composed of smaller IJs. Based on task similarity and relative time spent, the division of clusters and IJs performed by DAFSC personnel is illustrated in Figure 1, and a listing is provided below. The stage (ST) or group (GP) number shown beside each title is a reference to computer-printed information; the number of personnel in each stage or group (N) is also shown.

I. FLIGHTLINE COMMUNICATION AND NAVIGATION SYSTEMS CLUSTER (ST0112, N=996)

- A. Flightline Maintenance Job (ST0392, N=793)
- B. Crew Chief Cross-Utilization Training (CUT) Job (ST0215, N=29)
- C. KC-10 Flightline Maintenance Job (ST0178, N=6)
- D. C-130 Flightline Maintenance Job (ST0273, N=13)
- E. C-141 Flightline Maintenance Job (ST0345, N=8)
- F. A-10 and U-2/TR-1 Flightline Maintenance Job (ST0398, N=11)
- G. B-52, C-130, and HH-1 Flightline Maintenance Job (ST0320, N=8)
- H. KC-135 Flightline Maintenance Job (ST0321, N=18)
- I. A-10 and F-4 Flightline Maintenance Job (ST0402, N=5)
- J. C-130 (Rhein Main) Flightline Maintenance Job (ST0386, N=7)
- K. U-2/TR-1 and E-3 Flightline Maintenance Job (ST0232, N=6)
- L. B-52 and KC-135 Flightline Maintenance Job (ST0370, N=5)
- M. C-130, C-5, E-3, and MH-53J Flightline Maintenance Job (ST0581, N=6)
- N. First-Line Supervisor Job (ST0226, N=28)

Communication and Navigation Systems Specialty Jobs (N= 1,974)



* Includes: Bench Check Monitor Job
Airlift Control Element Job
Maintenance Administration Job
Resource Management Job

Figure 1

II. SHOP COMMUNICATION AND NAVIGATION SYSTEMS CLUSTER (ST0071, N=468)

A. Shop Maintenance Job (ST0190, N=362)
B. Shop First-Line Supervisor Job (ST0189, N=20)
C. Depot/Intermediate-Level Maintenance First-Line Supervisor Job (ST0208, N=18)
D. Special Operations Component Repair Job (ST0441, N=14)
E. Station Keeping Equipment (SKE) Maintenance Job (ST0186, N=14)
F. Search Weather Radar Maintenance Job (ST0266, N=13)

III. STAFF PERSONNEL CLUSTER (ST0016, N= 348)

A. Expediter Job (ST0148, N=9)
B. Tool Crib Monitor Job (ST0131, N=9)
C. Due-In-From Maintenance (DIFM) Monitor Job (ST0159, N=12)
D. Test Measurement and Diagnostic Equipment (TMDE) Monitor Job (ST0212, N=5)
E. Quality Assurance Inspector Job (ST0085, N=21)
F. Flightline Supervisor Job (ST0166, N=32)
G. Shop Supervisor Job (ST0185, N=83)
H. Program Management Job (ST0248, N=8)
I. Special Communications Supervisor Job (ST0206, N=9)
J. Material Deficiency Job (ST0194, N=8)
K. Technical Order Maintenance Job (ST0132, N=5)
L. Programs and Mobility Management Job (ST0201, N=13)
M. Resident Course Instructor Job (ST0114, N=37)
N. Field Training Detachment (FTD) Instructor Job (GP0145, N=33)

IV. BENCH CHECK MONITOR JOB (ST0251, N=8)

V. AIRLIFT CONTROL ELEMENT JOB (ST0219, N=7)

VI. MAINTENANCE ADMINISTRATION JOB (ST0242, N=26)

VII. RESOURCE MANAGEMENT JOB (ST0163, N=7)

The respondents forming these stages account for 95 percent of the survey sample. The remaining 5 percent perform tasks or series of tasks which did not group with any of the defined jobs. Job titles given by respondents representative of these jobs include Combat Support Communication Specialist, Airlift Control Squadron Cadre, Assistant First Sergeant, Assistant Dorm Manager, and Unit Career Advisor.

Group Descriptions

The following paragraphs contain brief descriptions of the jobs identified through the career ladder structure analysis. Selected background data for these jobs are provided in Table 2. Representative tasks for all the stages and groups are contained in Appendix A.

I. FLIGHTLINE COMMUNICATION AND NAVIGATION SYSTEMS CLUSTER (ST0112). The 996 airmen forming this cluster account for 51 percent of the survey sample. They perform the core technical organizational maintenance on communication and navigation systems. Forty-four percent of their relative job time is devoted to flightline maintenance activities that include general avionic systems maintenance (17 percent), communication and navigation systems maintenance (14 percent), and cross-utilization training (CUT) tasks (13 percent). These airmen perform an average 145 tasks. Fifty-seven percent of this cluster report the paygrades of E-4 and E-5 (32 percent and 26 percent, respectively) and average over 6 1/2 years in the career field.

Fourteen jobs were identified within this cluster. The Flightline Maintenance job should be used as the basis of structured AFSC 2A4X2 technical training since this job encompasses the gamut of common on-equipment maintenance activities performed by the majority of the airmen in this cluster. The Crew Chief job is distinguished by the concentration on CUT tasks. The First-Line Supervisor job includes airmen who spend more of their job time performing supervisory tasks with a corresponding reduction in technical AFSC-specific tasks. The remaining 11 jobs reflect responsibilities identified with certain systems and the primary interrelationships between those systems and their subsystems and reflect potential equipment considerations for training. Members in these 11 jobs perform significantly fewer tasks than members in the Flightline Maintenance job, concentrating on tasks associated with specific communication and navigation systems. The following job descriptions provide guidance on specific systems, functions, or equipment that are necessary for complete and comprehensive AFSC 2A4X2 training curriculum.

A. Flightline Maintenance Job (ST0392). The essence of this job involves on-equipment maintenance of communication and navigation systems. The primary responsibility of these 86 airmen involves locating faulty line-replaceable units (LRUs) and then replacing them. These members spend 90 percent of their relative job time performing technical AFSC-specific tasks. In addition to these on-equipment maintenance activities, these airmen spend 13 percent of their relative job time performing CUT tasks. Flightline maintenance tasks typically include operationally checking, isolating malfunctions, or removing and installing various communication and navigation systems components. Of the average 154 tasks performed, typical tasks include:

operationally check radio systems
operationally check interphone systems
inspect communication or navigation systems

TABLE 2

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS

AFSC 2A4X2 (FORMERLY AFSC 453X2)

	FLTLN COMM/NAV SYSTEMS CLUSTER	FLTLN MAINT	CREW CHIEF CUT	KC-10 FLTLN MAINT	C-130 FLTLN MAINT	C-141 FLTLN MAINT	A-10/U-2/ TR-1 FLTLN MAINT	B-52/C-130/ HH-1 FLTLN MAINT
NUMBER IN GROUP	996	793	29	6	13	8	11	8
PERCENT OF SAMPLE	51%	40%	2%	*	1%	*	*	*
PERCENT IN CONUS	81%	83%	59%	100%	85%	88%	82%	75%
DAFSC DISTRIBUTION:								
45532	27%	26%	17%	50%	54%	88%	45%	63%
45552	55%	58%	80%	50%	38%	0%	54%	25%
45572	18%	17%	3%	0%	8%	12%	0%	13%
PREDOMINANT GRADE(S)	E-4/5	E-4/5	E-4	E-3/4	E-3	E-3	E-4	E-3
AVG MONTHS IN CAREER FIELD	80	82	67	33	29	33	41	47
AVG MONTHS IN SERVICE	89	91	71	37	33	34	47	47
PERCENT WITH 4 YEARS IN CAREER FIELD (TICF)	41%	39%	38%	83%	92%	87%	63%	63%
PERCENT SUPERVISING	46%	50%	17%	17%	8%	12%	0%	0%
AVG NUMBER OF TASKS PERFORMED	145	154	69	82	77	72	66	86

* Less than 1 percent

TABLE 2 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS

	AFSC 2A4X2 (FORMERLY AFSC 453X2)						
	KC-135 FLTLN MAINT	A-10/F-4 FLTLN MAINT	C-130/ RHEIN MAIN FLTLN MAINT	U-2/TR-1/ E-3 FLTLN MAINT	B-52/ KC-135 FLTLN MAINT	C-130/ C-5/ E-3/ MH-53J FLTLN MAINT	1ST-LN SUPVSR
NUMBER IN GROUP	18	5	7	6	5	6	28
PERCENT OF SAMPLE	1%	*	*	*	*	*	1%
PERCENT IN CONUS	89%	100%	0%	100%	100%	67%	71%
DAFSC DISTRIBUTION:							
45532	67%	20%	0%	0%	60%	67%	0%
45552	33%	80%	71%	33%	40%	33%	15%
45572	0%	0%	29%	67%	0%	0%	85%
PREDOMINANT GRADE(S)	E-3	E-4	E-4	E-5/6	E-3	E-4	E-6
AVG MONTHS IN CAREER FIELD	27	59	79	151	31	31	156
AVG MONTHS IN SERVICE	29	64	100	161	31	42	183
PERCENT WITH 4 YEARS IN CAREER FIELD (TICF)	89%	60%	28%	0%	100%	83%	7%
PERCENT SUPERVISING	17%	20%	43%	83%	20%	0%	75%
AVG NUMBER OF TASKS PERFORMED	77	95	262	118	103	189	161

* Less than 1 percent

TABLE 2 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS

	AFSC 2A1X3 (FORMERLY AFSC 455X2)						
	SHOP COMM/NAV SYSTEMS CLUSTER	SHOP MAINT	SHOP 1ST-LINE SUPVSR	DEPOT/ILMS 1ST-LINE SUPVSR	SPC OPS COMPONENT REPAIR	SKE MAINT	SEARCH WEATHER RADAR MAINT
NUMBER IN GROUP	468	362	20	18	14	14	13
PERCENT OF SAMPLE	24%	18%	1%	1%	1%	1%	1%
PERCENT IN CONUS	84%	84%	60%	83%	100%	100%	77%
DAFSC DISTRIBUTION							
45532	23%	24%	0%	0%	43%	64%	38%
45552	57%	60%	40%	61%	50%	29%	62%
45572	20%	16%	60%	39%	7%	7%	0%
PREDOMINANT GRADE(S)	E-4/5	E-4/5	E-6/7	E-5	E-4/5	E-3	E-3/4
AVG MONTHS IN CAREER FIELD	85	80	155	107	60	42	40
AVG MONTHS IN SERVICE	94	88	180	121	85	45	44
PERCENT WITH 4 YEARS IN CAREER FIELD (TICF)	36%	38%	5%	6%	49%	78%	71%
PERCENT SUPERVISING	49%	48%	80%	82%	36%	21%	23%
AVG NUMBER OF TASKS PERFORMED	200	221	141	128	118	136	78

* Less than 1 percent

TABLE 2 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS

	STAFF PERSONNEL							
	STAFF PERS CLUSTER	EXPEDITER	TOOL CRIB MONITOR	DIFM MONITOR	TMDE MONITOR	QUALITY ASSURANCE INSPECTOR	FLTLN SUPVSR	SHOP SUPVSR
NUMBER IN GROUP	348	9	9	12	5	21	32	83
PERCENT OF SAMPLE	18%	*	*	1%	*	1%	2%	4%
PERCENT IN CONUS	83%	100%	56%	100%	100%	81%	72%	71%
DAFSC DISTRIBUTION								
45532	1%	0%	22%	0%	20%	0%	3%	0%
45552	35%	0%	67%	67%	60%	15%	9%	15%
45572	64%	100%	11%	33%	20%	85%	88%	85%
PREDOMINANT GRADE(S)	E-6/7	E-7	E-5/6	E-4/5	E-4	E-6	E-7	E-7
AVG MONTHS IN CAREER FIELD	155	185	111	117	92	133	206	172
AVG MONTHS IN SERVICE	174	199	127	153	96	155	221	192
PERCENT WITH 4 YEARS IN CAREER FIELD (TICF)	4%	0%	22%	33%	20%	0%	3%	1%
PERCENT SUPERVISING	54%	67%	56%	67%	20%	19%	91%	94%
AVG NUMBER OF TASKS PERFORMED	62	23	64	79	29	59	52	105

* Less than 1 percent

TABLE 2 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS

	STAFF PERSONNEL						
	PROGRAM MGMT	SPECIAL COMM SUPVSR	MATERIAL DEFICIENCY	TECHNICAL ORDER MAINT	PGRM & MOBILITY MGMT	RESIDENT COURSE INSTRUCTOR	FTD INSTRUCTOR
NUMBER IN GROUP	8	9	8	5	13	37	33
PERCENT OF SAMPLE	*	*	*	*	1%	2%	2%
PERCENT IN CONUS	75%	100%	100%	60%	92%	97%	94%
DAFSC DISTRIBUTION:							
45532	0%	0%	0%	0%	0%	0%	0%
45552	25%	67%	25%	60%	8%	75%	30%
45572	75%	33%	75%	40%	92%	25%	70%
PREDOMINANT GRADE(S)	E-6	E-6	E-7	E-5/6	E-7	E-4/5	E-5/6
AVG MONTHS IN CAREER FIELD	182	117	180	94	206	113	144
AVG MONTHS IN SERVICE	207	150	187	159	214	134	153
PERCENT WITH 4 YEARS IN CAREER FIELD (TICF)	0%	0%	0%	20%	0%	5%	0%
PERCENT SUPERVISING	62%	56%	25%	60%	8%	19%	33%
AVG NUMBER OF TASKS PERFORMED	43	137	33	18	18	47	132

* Less than 1 percent

TABLE 2 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS

	INDEPENDENT JOBS			
	BENCH CHECK MONITOR	AIRLIFT CONTROL ELEMENT	MAINTENANCE ADMIN	RESOURCE MGMT
NUMBER IN GROUP	8	7	26	7
PERCENT OF SAMPLE	*	*	1%	*
PERCENT IN CONUS	75%	43%	81%	71%
DAFSC DISTRIBUTION:				
45532	87%	57%	8%	0%
45552	12%	43%	76%	0%
45572	0%	0%	16%	100%
PREDOMINANT GRADE(S)	E-3	E-3	E-4	E-7
AVERAGE MONTHS IN CAREER FIELD	18	36	85	214
AVERAGE MONTHS IN SERVICE	20	37	102	221
PERCENT WITH 4 YEARS IN CAREER FIELD (TICF)	100%	71%	27%	0%
PERCENT SUPERVISING	0%	14%	27%	29%
AVERAGE NUMBER OF TASKS PERFORMED	45	34	26	25

* Less than 1 percent

perform tow team member duties
remove or install radio system LRUs, other than those requiring special handling
isolate malfunctions in interphone cords
test continuity of avionic wiring, coaxial cables, or triaxial cables

Fifty-seven percent of these airmen are assigned to Air Mobility Command (AMC). Ninety-three percent indicated they perform flightline maintenance exclusively. Sixty-one percent are in the paygrades of E-4 and E-5, and 36 percent report they are in their first enlistment.

B. Crew Chief Cross-Utilization Training (CUT) Job (ST0215). These 29 airmen perform general avionic systems maintenance; however, their job is distinctly different from the flightline maintenance job; they spend 53 percent of their relative job time dealing with CUT tasks. Performing a very limited job, these individuals perform only 69 tasks, less than half the average number of tasks performed by members of the Flightline Maintenance job. Quick-turnaround maintenance is provided by these airmen, since the missions of the organizations in which this job is found provide support and service for aircraft passing through the base. Representative tasks include:

position aircraft chocks
refuel or defuel aircraft
ground aircraft
launch and recover aircraft
operate aircraft power units, including quick-start air source
perform tow team member duties

Eighty-three percent of these members report they hold either the 3- or 5-skill level DAFSC (14 percent and 59 percent, respectively). Their predominant paygrades are E-3 and E-4.

C. KC-10 Flightline Maintenance Job (ST0178). Performing an average of 82 tasks, these 6 airmen spend 45 percent of their relative job time maintaining radio navigation and radio systems (23 percent and 22 percent, respectively). Airborne radio navigation systems, such as automatic direction finders (ADFs), tactical air navigation (TACAN), and VHF omnirange (VOR), are typical of the systems maintained by these airmen. An additional 19 percent of their relative job time is spent performing general avionic systems maintenance and core automated maintenance system (CAMS) activities in support of these activities. Representative tasks include:

isolate malfunctions in installed TACAN systems
isolate malfunctions in installed ADF systems
operationally check ADF systems
isolate malfunctions in installed secure voice systems
operationally check UHF ADF systems
isolate malfunctions in installed radio systems, other
than AFSATCOM

Averaging over 2 1/2 years in the career field, five of the six members report they are in their first enlistment. Half of these members report they are in the paygrade of E-3, with the remaining reporting a paygrade of E-4. Four of the six members report assignment to an air refueling squadron (AREFS). Five members report that they perform maintenance predominantly on KC-10 aircraft while assigned to Air Combat Command (ACC).

D. C-130 Flightline Maintenance Job (ST0273). These 13 airmen devote 40 percent of their relative job time to performing general avionic systems maintenance and CUT tasks (21 percent and 19 percent, respectively). Fifty-three percent of their relative job time is spent maintaining communication and navigation systems; 27 percent of this time is spent on maintaining radio and radio navigation systems (13 percent and 14 percent, respectively). Individuals in this job perform an average of 77 tasks, substantially lower than the average number of tasks performed by the larger Flightline Maintenance job. The following tasks are typical of the tasks performed.

safety wire avionic system equipment
open or close radomes
test continuity of avionic wiring, coaxial cables, or
triaxial cables
refuel or defuel aircraft
perform tow team member duties
operationally check interphone systems
remove or install radio navigation system LRUs, other than
those requiring special handling
remove or install radio system LRUs, other than those
requiring special handling

With an average of only 2 years and 4 months in the career field (second lowest time in career field for any of the jobs in this cluster), the predominant paygrade for these individuals is E-4. Ten of the thirteen members are assigned to an airlift squadron (ALS), with 11 members performing maintenance predominantly on C-130 aircraft while assigned to AMC.

E. C-141 Flightline Maintenance Job (ST0345). Fifty-nine percent of these eight airmens' relative job time is spent performing general avionic systems maintenance (24 percent) and maintenance on radio navigation and radio systems (18 percent and 17 percent, respectively). These members perform an average of only 72 tasks. Tasks representative of the work performed include:

operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts
operationally check radio systems
trace signals through circuits using schematics or wiring diagrams
remove or install radio system LRUs, other than those requiring special handling
set up flightline maintenance stands
operationally check ADF systems

Seven of the eight airmen report they are in their first enlistment and hold the 3-skill level DAFSC. The predominant paygrade held is E-3. Seven members are assigned to AMC, working predominantly on the C-141 aircraft.

F. A-10 and U-2/TR-1 Flightline Maintenance Job (ST0398). Maintenance on general avionic systems, radio navigation, and radio systems accounts for 60 percent of relative job time for the eight individuals that comprise this job. An additional 9 percent of their relative job time is devoted to maintaining identification systems, more specifically, identification friend or foe (IFF). These members perform an average of only 66 tasks, the lowest average number of tasks performed by any of the jobs within this cluster. Tasks representative of the work performed include:

safety wire avionic system equipment
inspect egress system safety pin installation
operationally check TACAN systems using BITE
operationally check TACAN systems using ground stations
preset frequencies in radio control units
operationally check IFF using BITE
operationally check IFF using FTE

In contrast to the previous job, only one individual reports being in their first enlistment. Averaging over 3 1/2 years in the career field, 8 of these 11 members are in the paygrade of E-4. With 9 of the 11 reporting assignment to ACC, these airmen maintain communication and navigation systems on the A-10 and U-2/TR-1 aircraft.

G. B-52, C-130, and HH-1 Flightline Maintenance Job (ST0320). The 8 individuals performing this job perform an average of 85 tasks. Twenty-four percent of their relative job time is spent performing general avionics maintenance, with radio and radio navigation accounting for an additional 44 percent of their relative job time. Tasks which characterize the work performed in this job include:

operate powered aerospace ground equipment (AGE),
such as power units, heaters, or light carts
open or close radomes
operationally check UHF ADF systems
operationally check TACAN systems using ground stations
operationally check glideslope receivers using FTE
remove or install equipment shock mounts

Four of the eight individuals in this job are in the paygrade of E-3, while three of the remaining four are in the paygrade of E-4. Three members are assigned to ACC and three to Air Force Special Operations Command (AFSOC). These airmen maintain systems specific to the B-52, C-130, and HH-1 aircraft.

H. KC-135 Flightline Maintenance Job (ST0321). The 18 NCOs performing this job perform an average of 77 tasks. Thirty-one percent of their relative job time is spent on general avionic systems maintenance. An additional 26 percent of their relative job time is devoted to maintaining radio systems and radio navigation systems (15 percent and 11 percent, respectively). Typical tasks include:

operationally check radio systems
inspecting or change desiccant crystals
remove or install aircraft access plates or panels
inspect radomes for delimitation or cracks
isolate malfunctions in installed VOR systems
isolate malfunctions in installed TACAN systems

These are the least experienced airmen of any job in this cluster, averaging a little over 2 years in the career field; 15 of the 18 reporting they are still in their first enlistment. Twelve of these airmen report they hold the 3-skill level DAFSC. Fourteen individuals report assignment to air refueling squadrons (AREFS) where maintenance is performed primarily on the KC-135 aircraft.

I. A-10 and F-4 Flightline Maintenance Job (ST0402). This job is distinctive from the other jobs in this cluster; they are the only group of individuals who work on identification systems to any substantial degree (15 percent of their relative job time). Thirty-four percent of these five airmens' relative job time is spent maintaining radio navigation systems. Examples of the average 95 tasks performed by these airmen include:

operationally check localizer receivers using FTE
operationally check marker beacon receivers using FTE
operationally check TACAN systems using FTE
operationally check airborne interrogator systems using BITE
isolate malfunctions to IFF RT SRUs
isolate malfunctions in installed IFF systems

All five members are in the paygrade of E-4, averaging a little less than 5 years in the career field. Three of the five hold the 5-skill level DAFSC. Four individuals are assigned to fighter squadrons (FSs) working on the A-10 or F-4 aircraft.

J. C-130 (Rhein Main) Flightline Maintenance Job (ST0386). This job is distinctive from all the other jobs within this cluster in that it involves both organizational and field maintenance. This group of seven airmen perform a different job from the previously mentioned C-130 Flightline Maintenance job (ST0273); these airmen perform 28 percent of their relative job time maintaining radar navigation systems (compared to the 9 percent for the previously mentioned C-130 job). This job entails maintenance on the doppler and terrain following/terrain avoidance radar and is the only job within this cluster that maintains avionic system mockups. Averaging 262 tasks, these airmen perform the highest average number of tasks for any job within this cluster. Tasks characteristic of this job include:

remove or install TACAN antennas
isolate malfunctions in installed ADF systems
remove or install mockup SRUs
bench check mockup LRUs
bench check terrain following/terrain avoidance control boxes, other than for FLRs
operationally check doppler navigation systems

Five of the seven members report they hold the 5-skill level DAFSC and average over 6 1/2 years in the career field (second highest average amount of time held by any job in this cluster). All seven airmen are assigned to AFSOC, more specifically Rhein Main, and work exclusively on the C-130 aircraft.

K. U-2/TR-1 and E-3 Flightline Maintenance Job (ST0232). The six airmen doing this job spend 33 percent of their relative job time on administrative and supply, and general avionic systems maintenance activities. Maintenance of radio systems and radio navigation systems accounts for an additional 18 percent of their relative job time. An additional 34 percent of their job time is concentrated on supervision, management, and training functions. Members report an average of 118 tasks, of which the following are representative:

make entries on AFTO Forms 781 series (AFORM Aircrew/Mission Flight Data Document)
operate associated systems while checking radio systems
operationally check radio systems
inspect communications or navigations systems
trace signals through circuits using schematics or wiring diagrams
demonstrate operation of equipment
conduct OJT

Representing the second most experienced job in this cluster, these airmen average over 12 1/2 years in the career field, with four of the six reporting they hold the 7-skill level DAFSC. Five NCOs are assigned to ACC, working predominantly on the U-2/TR-1 and E-3 aircraft.

L. B-52 and KC-135 Flightline Maintenance Job (ST0370). The five airmen performing this job spend 33 percent of their relative job time maintaining radio systems (18 percent) and radio navigation systems (15 percent). Eighteen percent of their relative job time is spent on general avionic systems maintenance, with an additional 15 percent of their time performing CUT tasks. Tasks characteristic of the average 103 tasks performed include:

operationally check VOR using ground stations
operate associated systems while checking radio systems
isolate malfunctions in installed GPS systems
isolate malfunctions in installed secure voice systems

inspect equipment shock mounts
safety wire avionic system equipment
perform tow team member duties
perform fire guard duties

Averaging over 2 1/2 years in the career field, three of the five airmen are in the paygrade of E-3, with the remaining two in the paygrade of E-2. All members are assigned to AMC working predominantly on the B-52 and the KC-135 aircraft.

M. C-130, C-5, E-3, and MH-53J Flightline Maintenance Job (ST0581). These airmen spend 43 percent of their relative job time maintaining radio navigation and radio systems. An additional 12 percent of these six airmens' relative job time is devoted on general avionic systems maintenance. The average number of tasks performed in this job is 190. Representative tasks include:

operationally check VOR using ground stations
operationally check VOR using FTE
operationally check UHF ADF systems
operationally check VHF FM radio homing systems
open or close radomes
operate associated systems while checking radar navigation systems
operate associated systems while checking IFF systems

Four of the six airmen hold the 3-skill level DAFSC, and the average time in the career field is 2 1/2 years. Three airmen report they are assigned to ACC. Two are assigned to AFSOC, working predominantly on the C-130, C-130A/B/D/E, and MC-130 aircraft. Maintenance is also performed on the C-5 and E-3B/C aircraft, and the MH-53J helicopter.

N. First-Line Supervisor Job (ST0226). Performing an average of 161 tasks, these 28 members devote 23 percent of their relative job time to maintaining communication and navigation systems. An additional 36 percent of their relative job time is spent on management and supervisory duties and responsibilities, with 83 percent of these individuals reporting they supervise an average of 11 airmen. The remaining 41 percent of their relative job time is devoted to support functions, with CUT duties accounting for 14 percent of their relative job time and administrative and supply functions accounting for 15 percent. Tasks illustrative of the work performed include:

write EPRs
direct flightline maintenance activities
inspect completed jobs
isolate malfunctions in avionic systems wiring or coaxial cables
position nonpowered or powered AGE to aircraft
make entries on AFTO Forms 781 series (AFORM Aircrew/Mission Flight Data Document)
operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts

Comprising the most experienced job in this cluster, these NCOs average over 13 years in the career field. The 7-skill level DAFSC is held by 76 percent of these airmen, with 93 percent reporting they are in either paygrade E-6 or E-7 (61 percent and 22 percent, respectively). Seventy-five percent report their level of maintenance is flightline. Fifty-four percent of these individuals are assigned to AMC.

II. SHOP COMMUNICATION AND NAVIGATION SYSTEMS CLUSTER (ST0071). The 468 airmen forming this cluster account for 24 percent of the survey sample. These members perform the primary AFSC-specific off-equipment maintenance on communication and navigation systems. However, since some organizational structures need to continue with dual-qualified on- and off-equipment maintenance personnel, on-equipment maintenance is performed by some members of this cluster as well. Shop maintenance tasks typically include bench checking, adjusting or aligning, or repairing communication and navigation systems components. These members spend 87 percent of their relative job time performing technical AFSC-specific tasks. These airmen average a little over 7 years in the career field, with 59 percent reporting they are in the predominant paygrades of E-4 and E-5.

Six jobs were identified within this cluster. The Shop Maintenance job should be used as the basis for structured AFSC 2A1X3 technical training, since this job encompasses the complete scope of off-equipment maintenance activities and includes some on-equipment maintenance activities as well; and is performed by a majority of airmen within this cluster. Two jobs are distinguishable by a larger amount of supervisory and management functions performed. The three remaining jobs reflect responsibilities identified with certain systems and the primary interrelationships between those systems and their subsystems and reflect potential equipment considerations for training. The following job descriptions provide guidance on specific systems, functions, or equipment that are necessary for complete and comprehensive AFSC 2A1X3 training curriculum.

A. Shop Maintenance Job (ST0190). Both on- and off-equipment maintenance of communication and navigation systems characterize the responsibilities of these 362 airmen. Although off-equipment maintenance makes up a majority of these members' relative job time, there are instances where MAJCOMs require dual qualification of their personnel, and hence require both on- and off-equipment maintenance of its members. In contrast to the Flightline Maintenance job, these members perform virtually no CUT tasks, spending 64 percent of their relative job time in the more arduous task of locating and repairing malfunctions in line replaceable subsystems in the shop environment. The primary responsibilities of these airmen include isolating, analyzing, and repairing malfunctions, as well as modifying or adjusting communication and navigation systems and components. Members performing this job average 221 tasks; compared to the average 154 tasks for the Flightline Maintenance job. Representative shop maintenance tasks include:

adjust or align TACAN RTs
repair TACAN RT units
inspect wave guides
bench check radio RTs
locate part or stock numbers in technical publications
clean avionic equipment

Sixty-six percent of these members are in ACC and AMC (33 percent in each), with 52 percent of the airmen reporting they hold the 5-skill level DAFSC. These members are in the predominant paygrades of E-4 and E-5 (34 percent and 28 percent, respectively).

B. Shop First-Line Supervisor Job (ST0189). Comprising the most experienced job in the Shop Communication and Navigation Systems cluster, these individuals spend 31 percent of their relative job time on supervisory, management, and training functions, with the remaining 69 percent of their relative job time performing the core AFSC-specific on- and off-equipment maintenance tasks. Eighty percent of these members perform supervisory functions. Of the average 141 tasks performed by these airmen, representative tasks include:

make entries on AFTO Forms 350 (Reparable Item Processing Tag)
create aircraft or support equipment maintenance discrepancies in CAMS
clear or close out completed aircraft maintenance discrepancies in CAMS

inspect completed jobs
determine work priorities
write EPRs
supervise Communication/Navigation Systems Specialists (AFSC 45552)

Twelve of the twenty members in this job report they hold the 7-skill level DAFSC, with the remaining 8 members holding the 5-skill level DAFSC. These 20 airmen average a little less than 13 years in the career field.

C. Depot/Intermediate-Level Maintenance First-Level Supervisor Job (ST0208). In contrast to the previous job, 16 of the 18 airmen in this job report they work at the depot or field maintenance level. Seventy percent of their relative job time is spent in the technical on- and off-equipment communication and navigation systems maintenance. Sixteen members report supervisory, management, and training responsibilities that account for 30 percent of their relative job time. Typical tasks performed by these members include:

inventory CTKs
bench check radio RTs
repair radio RTs
adjust or align mockup LRUs
perform corrosion control on avionic equipment
instruct personnel on equipment maintenance or repair techniques
direct in-shop maintenance activities

These airmen average a little over 10 years in the career field, with 11 reporting they hold the 5-skill level DAFSC and the remaining 7 reporting they hold the 7-skill level DAFSC (this is almost a reverse to the percentages in the Shop First-Line Supervisor job).

D. Special Operations Component Repair Job (ST0441). These 14 airmen spend 39 percent of their relative job time performing maintenance almost exclusively on terrain following/terrain avoidance radar. Another 33 percent of their relative job time is spent performing administrative and supply functions and general avionic systems maintenance. Representative of the average 118 tasks performed by these members include field maintenance tasks such as:

adjust or align terrain following/terrain avoidance signal data converters (SDCs)
bench check terrain following/terrain avoidance power supply programmers
repair terrain following/terrain avoidance transmitters, other than for FLRs
locate maintenance information in TOs
remove or install mockup LRUs
adjust or align mockup shop replaceable units (SRUs)

Averaging 5 years in the career field, 7 of the 14 airmen report they hold the 5-skill level DAFSC, with 6 of the 14 reporting they are in their first enlistment. All airmen are assigned to AFSOC, more specifically Hurlburt Field FL, working in a component repair squadron (CRS) predominantly on MC-130 and MH-53 aircraft.

E. Station Keeping Equipment (SKE) Maintenance Job (ST0186). Twenty-three percent of relative job time performed by these members is devoted to maintaining radar navigation systems, with tasks limited to the maintenance on doppler radar and search weather radar systems. These 14 members spent 11 percent of their relative job time maintaining SKE (the only members that perform maintenance on SKE). An additional 30 percent of their relative job time is spent performing general avionic systems maintenance and performing administrative and supply functions. Performing an average of 136 tasks, an average of 79 tasks account for over 50 percent of their relative job time. Typical tasks performed by these members include:

adjust or align search weather indicators
bench check search weather RT units
remove or install radar navigation system SRUs
trace signals through circuits using schematics or wiring diagrams
make entries on AFTO Forms 350 (Reparable Item Processing Tag)
bench check SKE RT units
remove or install SKE system SRUs

Averaging 3 1/2 years in the career field, 10 of the 14 report they are still in their first enlistment. All members report assignment to a maintenance squadron (MS), with 13 out of the 14 reporting assignment to AMC. All airmen report they maintain the C-130 aircraft, with eight reporting they also maintain the C-141 aircraft.

F. Search Weather Radar Maintenance Job (ST0266). In contrast to the previous job, these 13 airmen spend 30 percent of their relative job time performing both on- and off-equipment maintenance exclusively on the search weather radar system. Twenty-six percent of their relative job time is devoted to general avionic systems maintenance (13 percent) and maintaining mockups, test stations, and peculiar test equipment (13 percent). These members perform an average of 78 tasks, lowest average number of tasks performed by any job within this cluster. Tasks illustrative of the work performed include:

bench check search weather antennas
adjust or align search weather antennas
repair search weather RT units
inspect communications or navigations systems
bench check mockup LRUs
repair mockup LRUs
make entries on supply turn-in or issue forms,
such as AF Forms 2005 or DD Forms 1150

These individuals report the predominant paygrades of E-3 and E-4 (46 percent and 38 percent, respectively). Eight of the thirteen report this is their first enlistment. Ten airmen are assigned to ACC, with the remaining three assigned to United States Air Forces in Europe (USAFE) working predominantly on the RC-135, E-4, or EC-130 aircraft.

III. STAFF PERSONNEL CLUSTER (ST0016). This cluster of jobs encompasses those staff functions that are necessary for the support and operation of any maintenance environment. Accounting for 18 percent of the survey sample, these 348 airmen spend 83 percent of their relative job time performing an average of 62 tasks covering supervisory, management, training, and administrative functions. Fifty-four percent of these airmen report they supervise an average of seven individuals. Seventeen percent of these members are assigned overseas. This cluster contains, as a whole, the most senior personnel for the career ladder, averaging 12 years and 11 months in the career field. Sixty-five percent of these members report they hold the 7-skill level DAFSC and are in paygrades E-6 and E-7 (35 percent and 34 percent, respectively).

Fourteen jobs were identified within this cluster. Three jobs comprise supervisory functions, with limited time spent on technical tasks. Two jobs deal with the technical instruction of airmen for communication and navigation systems maintenance. The remaining nine jobs encompass varied support and staff functions necessary for the successful operation of any maintenance shop.

A. Expediter Job (ST0148). The nine individuals forming this job are responsible for the control and expeditious assignment, coordination, and completion of maintenance activities. Eighty-eight percent of their relative job time is spent in organizing and planning

(18 percent), directing and implementing (7 percent), inspecting and evaluating (17 percent), and performing administrative functions (30 percent). Eight percent of relative job time is spent performing two CUT tasks: performing expediter duties and towing nonpowered AGE. These members perform an average of only 23 tasks. Tasks which characterize the job performed by these individuals include:

direct flightline maintenance activities
determine work priorities
perform expediter duties
coordinate flightline maintenance with other activities
perform vehicle inspections using AF Forms 1800 (Operator's Inspection Guide and Trouble Report)
write EPRs
coordinate work with other sections

Six of the nine airmen are in the paygrade of E-7, with the remaining three in the paygrade of E-6. All nine members report the 7-skill level DAFSC and average over 15 years in the career field. Eight of the nine airmen indicated their job title to be Expediter.

B. Tool Crib Monitor Job (ST0131). This job is performed by nine airmen primarily responsible for inventorying and accounting for the parts and tools used by maintenance personnel. The following are representative of the average 64 tasks performed.

inspect consolidated tool kits (CTKs)
locate stock numbers on microfiche
locate maintenance information in TOs
inventory CTKs
inventory bench stock, equipment, or supplies
maintain supply control logs
make entries of supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150
process parts for turn-in to supply

Average time in the career field for this job is a little over 9 years, and the predominant paygrades are E-5 and E-6 (44 percent and 22 percent, respectively).

C. Due-In From Maintenance (DIFM) Monitor Job (ST0159). The primary responsibilities of these 12 airmen include ensuring quantities of tools, parts, and equipment needed by maintenance activities, as well as controlling the status and location of these items. They ensure items needing repair are repaired at base level or are sent to a depot repair facility and then placed back into service. Performing an average of 79 tasks, these individuals perform an average of only 39 tasks that account for over 50 percent of their relative job time. Typical tasks performed include:

maintain supply logs of ordered parts
verify daily supply document listings
access core automated maintenance system (CAMS) menus and data screens
maintain supply document listings
verify D04 supply registers
verify due-in from maintenance (DIFM) document listings, such as R26 or D23 Reports
maintain supply control logs

Half of these airmen report they hold the 5-skill level DAFSC, with four others reporting they hold the 7-skill level DAFSC. These incumbents average more than 9 and 1/2 years in the career field.

D. Test Measurement and Diagnostic Equipment (TMDE) Monitor Job (ST0212). These five members perform a job very limited in scope. Their job entails tracking and monitoring tools or equipment requiring calibration or special maintenance, maintaining calibration schedules, and forwarding tools and equipment to precision measurement equipment laboratories (PMELs). These individuals perform an average of 29 tasks, with 15 tasks accounting for 50 percent of their relative job time. Examples of tasks that are representative of this job include:

forward TMDE to precision measurement equipment laboratories (PMELs)
implement test measurement and diagnostic equipment (TMDE) monitoring programs
maintain TMDE schedules
maintain AFTO Forms 244 or 245 (Industrial/Support Equipment Record)
schedule inspections
inventory CTKs
determine requirements for resources, such as equipment, personnel, or supplies

These airmen have the least amount of time in the career field (92 months) and time in service (96 months) than for any job in this Staff cluster. Their predominant paygrades are E-4 and E-5. Three of the five members report they hold the 5-skill level DAFSC. Four airmen indicated their job title was TMDE Monitor.

E. Quality Assurance Inspector Job (ST0085). These 21 airmen have a distinctly different job from the other jobs in this Staff cluster because of the concentration of tasks pertaining to inspecting and evaluating functions; these activities account for 38 percent of their relative job time. This job is narrow in scope with members averaging 59 tasks. Typical quality assurance tasks performed by these personnel include:

inspect maintenance activities
inspect completed jobs
investigate accidents or incidents
inspect reported discrepancies
conduct ground safety inspections
conduct self-inspections
direct or implement quality control or
quality assurance programs

The 7-skill level DAFSC is held by 83 percent of the members in this group. Members average a little over 11 years in the career field. Eighty-six percent of these airmen report they are in the predominant paygrades of E-5 and E-6 (24 percent and 62 percent, respectively). The job title provided by 19 of the 21 individuals in this job was Quality Assurance Inspector.

F. Flightline Supervisor Job (ST0166). These 32 airmen spend 64 percent of their relative job time on inspecting and evaluating, directing and implementing, and organizing and planning functions. Ninety-one percent of the members report supervisory functions, and they supervise an average of nine airmen each. Not all of the airmen in this group indicated they perform maintenance; of those that did, a majority of them stated they perform organizational maintenance. An additional 15 percent of their relative job time is devoted to the management of flightline operations and its related administrative activities. Examples of the average 52 tasks performed include:

counsel subordinates on personal or military-related problems
determine requirements for resources, such as equipment,
personnel, or supplies
direct flightline maintenance activities
write EPRs
supervise Communication/Navigation Systems Technicians
(AFSC 45572)

interpret policies, directives, or procedures for subordinates
coordinate work with other sections
coordinate flightline maintenance with other activities

With a little over 17 years in the career field, these individuals are the most experienced airmen in this Staff cluster. Their predominant paygrade is E-7, and 87 percent report they hold the 7-skill level DAFSC.

G. Shop Supervisor Job (ST0185). In contrast to the previous job, most of these 83 members state they perform either field maintenance or both organizational and field maintenance. These airmen spend 66 percent of their relative job time on inspecting and evaluating, directing and implementing, and organizing and planning functions. Ninety-four percent of the members report having supervisory responsibilities, supervising an average of eight airmen. In addition to supervision, 21 percent of their relative job time is devoted to managing shop operations and performing the related administrative activities. These NCOs perform an average of 105 tasks, almost twice the number of tasks of the Flightline Supervisor job (averaging 52 tasks). Representative tasks include:

counsel subordinates on personal or military-related problems
write EPRs
direct in-shop maintenance activities
conduct self-inspections
coordinate work with other sections
determine requirements for resources, such as equipment, personnel, or supplies
access core automated maintenance system (CAMS) menus and data screens
supervise Communication/Navigation Systems Specialists (AFSC 45552)
evaluate subordinates' compliance with performance standards

Averaging over 14 years in the career field, these airmen are in the predominant paygrade of E-7 (57 percent), and 85 percent report they hold the 7-skill level DAFSC.

H. Program Management Job (ST0248). These eight airmen manage specific and varied programs slightly removed from the management of a maintenance shop. Performing an average of 43 tasks, these members concentrate on various management activities rather than actually managing people. They spend 50 percent of their relative job time in the organizing and

planning function. Inspecting and evaluating, and directing and implementing functions account for an additional 32 percent of their relative job time. Examples of activities include facilities management, airlift control element CADRE management, avionics reliability management, and weapons controller management. Typical tasks that characterize this job include:

determine work priorities
determine requirements for resources, such as equipment, personnel, or supplies
coordinate work with other sections
establish personnel requirements
establish performance standards
schedule work assignments
develop work methods or procedures
develop budget or financial requirements
establish organizational policies, office instructions (OIs), or standing operating procedures (SOPs)

Six of these eight NCOs report they hold the 7-skill level DAFSC, and the remaining two report they hold the 5-skill level DAFSC. With the predominant paygrade of E-6, these individuals average a little over 15 years in the career field.

I. Special Communications Supervisor Job (ST0206). Airmen performing this job are responsible for on- and off-equipment maintenance on communication and navigation systems on special operations aircraft. Although technical in nature (71 percent of relative job time spent in performing AFSC-specific tasks), 29 percent of these nine members' relative job time is spent on supervisory activities. An average of 137 tasks are performed by these members. Representative tasks include:

operationally check voice SATCOM systems
isolate malfunctions in installed voice SATCOM systems
load or zeroize secure voice system codes
repair voice SATCOM control boxes
determine requirements for resources, such as equipment, personnel, or supplies
locate maintenance information in TOs
coordinate work with other sections
write EPRs

These members average a little over 9 1/2 years in the career field, with four of the nine reporting the paygrade of E-5 and the remaining five reporting the paygrade of E-6. The 5-skill level DAFSC is held by seven of the nine members, with the remaining two holding the 7-skill level DAFSC. Working predominantly on the MC-130 and HC-130 aircraft and the secure voice systems on the MH-60 and MH-53 aircraft, these airmens' responsibilities are in support of the command and control missions of AMC and AFSOC.

J. Material Deficiency Job (ST0194). The primary responsibilities of these eight airmen are processing and controlling maintenance deficiency reports. They spend 32 percent of their relative job time performing administrative and supply functions, with 64 percent of their relative job time in supervisory, management, and training activities. These members perform an average of 33 tasks, with an average of only 16 tasks accounting for over 50 percent of their relative job time. Tasks which typify material deficiency activities include:

locate maintenance information in TOs
conduct in-service reviews of preliminary TOs
review TOs
operate mini- or microcomputers
type correspondence
conduct staff meetings
develop records on maintenance or disposition files
interpret policies, directives, or procedures for subordinates
evaluate suggestions

These members average 15 years in the career field, with six of the eight holding the 7-skill level DAFSC. The remaining two airmen hold the 5-skill level DAFSC.

K. Technical Order Maintenance Job (ST0132). This job is very narrow in scope. These 5 airmen perform an average of only 18 tasks, tied with 1 other job for fewest number of tasks performed in this Staff cluster. Fifty-six percent of their relative job time is spent on administrative and supply functions, with an additional 23 percent of their relative job time in inspecting and evaluating. This job entails maintaining and directing maintenance of technical order or technical publication files and libraries. Examples of tasks performed include:

direct maintenance of technical order (TO) files
maintain TO or technical publication files
maintain AFTO Forms 110 or 110A (Technical Order/CPIN Distribution Record)
review TOs
operate mini- or microcomputers

Three of the five NCOs report they hold the 5-skill level DAFSC, with the remaining two holding the 7-skill level DAFSC. These individuals average almost 8 years in the career field, with two reporting they are in the paygrade of E-4, one in the paygrade of E-5, and the remaining two in the paygrade of E-6.

L. Programs and Mobility Management Job (ST0201). Ensuring that maintenance activities are prepared for deployments and contingency operations is a primary responsibility of these 13 NCOs. Eighty-five percent of this groups' relative job time is spent in organizing and planning and directing and implementing operational, mobility, financial, manpower, and facility management plans. The average number of tasks performed by these airmen is 18 (tied with 1 other job for fewest number of tasks performed in this Staff cluster). The following are representative tasks:

determine requirements for resources, such as equipment, personnel, or supplies
develop budget or financial requirements
coordinate work with other sections
conduct or participating in staff meetings
develop records or maintenance or disposition files
prepare briefings
determine work priorities

With an average of over 17 years in the career field, and 12 of the 13 members reporting they hold the 7-skill level DAFSC, this group represents the most experienced members in any job in this Staff cluster. Examples of job titles reported by these individuals include, NCOIC Mobility, Logistics Superintendent, and Facilities Manager.

M. Resident Course Instructor Job (ST0114). The training function accounts for 46 percent of these 37 airmens' relative job time. An additional 12 percent of their relative job time is spent performing administrative tasks. This is structured AFSC-specific training performed at the Technical Training School at Keesler AFB on different communication and navigation systems and equipment. The following are typical of the average 47 tasks performed by this group:

conduct resident course classroom training
demonstrate operation of equipment
instruct personnel on equipment maintenance or repair techniques
prepare lesson plans

administer or scoring tests
counsel trainees or training progress
develop resident course materials

Averaging 9 and 1/2 years in the career field, 76 percent of these individuals report they hold the 5-skill level DAFSC.

N. Field Training Detachment (FTD) Instructor Job (GP0145). Members of this job spend 20 percent of their relative job time training AFSC members in the field. Hands-on training is provided by these 33 members covering the varied communication and navigation systems. These hands-on activities covering technical AFSC-specific tasks account for 46 percent of their relative job time. Both on- and off-equipment maintenance tasks are performed, although shop tasks comprise the majority of the work performed. This group of instructors perform 132 tasks, the highest average number of tasks of any job in this Staff cluster. The following tasks are illustrative of the work performed:

demonstrate operation of equipment
instruct personnel on equipment maintenance or repair techniques
conduct self-inspections
identify test equipment malfunctions
administer or scoring tests
bench check mockup LRUs
adjust or align mockup shop replaceable units (SRUs)
operationally check radio systems

Averaging 12 years in the career field, 60 percent of these NCOs indicated they hold the 5-skill level DAFSC. Their predominant paygrades are E-5 and E-6 (36 percent and 39 percent, respectively).

IV. BENCH CHECK MONITOR JOB (ST0251). This IJ is composed of eight members who perform a job limited in both scope and magnitude. An average of only 45 tasks are performed by this group. This job is performed by the youngest and least experienced airmen in all the survey sample, averaging only 1 1/2 years in the career field. Thirty-eight percent of relative job time is spent performing general avionic systems maintenance and administrative functions (23 percent and 15 percent, respectively). All airmen indicate their level of maintenance is field maintenance. Representative tasks include:

inspect communications or navigation systems
clean avionic equipment
remove or install common hardware, such as switches, knobs, or faceplates
locate maintenance information in TOs
bench check radio RTs
clean facilities
repair radio RTs
adjust or align mockup LRUs

All eight airmen are still in their first enlistment and report the predominant paygrade of E-3. Seven members indicated their job title was Bench Check Monitor.

V. AIRLIFT CONTROL ELEMENT JOB (ST0219). In this IJ, seven airmen perform a contingency function responsible for providing deployed command and control communications support for enroute, on-load, or off-load locations. As a result of operating in a contingency state, these airmen report that actual communication and navigation systems maintenance accounts for 35 percent of their relative job time. A majority of their relative job time (56 percent) is spent performing administrative and supply activities. These individuals perform an average of 34 tasks. Examples of representative tasks include:

tag or label equipment
locate stock numbers on microfiche
locate information in TOs
make entries on AFTO Forms 350 (Reparable Item Processing Tag)
process parts for turn-in to supply
operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts
inspect communications or navigations systems
fabricate coaxial or triaxial cables
fabricate multiple wire cables

Found in AMC, these members work in an airlift control squadron. Averaging 3 years in the career field, five of the seven airmen report they are still in their first enlistment. Four of the seven report they hold the 3-skill level DAFSC (paygrade of E-3), with the remaining three reporting they hold the 5-skill level DAFSC (paygrade of E-4).

VI. MAINTENANCE ADMINISTRATION JOB (ST0242). This IJ, comprised of 26 airmen, provides maintenance information to all maintenance environments so that decisions on maintenance, equipment, and personnel resources can be made. Responsibilities include inputting data, monitoring status and maintenance actions, and retrieval of information from the data base for local use and for making decisions. Sixty percent of their relative job time is spent performing core automated maintenance system (CAMS) activities, with an additional 25 percent of their relative job time spent performing administrative and supply activities. Tasks that represent the average 26 tasks perform include:

access core automated maintenance system (CAMS) menus and data screens
create aircraft or support equipment maintenance discrepancies in CAMS
assign job control numbers
analyze CAMS data
change CAMS work unit codes
perform CAMS inquiries for scheduled aircraft discrepancies
perform aircrew debriefs

The predominant paygrade is E-5, with 77 percent reporting they hold the 5-skill level DAFSC. These members average a little over 7 years in the career field.

VII. RESOURCE MANAGEMENT JOB (ST0163). The seven NCOs in this IJ perform financial and resource management functions as their primary responsibility; accounting for 37 percent of their relative job time. Their job is limited in scope, with an average of only 25 tasks performed. Tasks illustrative of this job include:

draft budget requirements
develop budget or financial requirements
evaluate budget or financial requirements
maintain cost center accounts
develop cost-reduction programs

These individuals all hold the 7-skill level DAFSC and average a little less than 18 years in the career field. All seven reported their job title was Resource Advisor.

Summary

Career ladder structure analysis identified two technically-oriented clusters of jobs: (1) a 'Flightline (on-equipment) -- AFSC 2A4X2 (formerly 453X2)' cluster, and (2) a 'Shop (off-equipment and on- and off-equipment) -- AFSC 2A1X3 (formerly 455X2)' cluster. The Flightline Communication and Navigation Systems cluster clearly represents the duties and responsibilities of the newly created 2A4X2 AFSC (formerly 453X2) - covering on-equipment maintenance of communication and navigation systems. Conversely, the Shop Communication and Navigation Systems cluster represents the duties and responsibilities of the restructured 2A1X3 (formerly 455X2) AFSC - encompassing both on- and off-equipment maintenance of communication and navigation systems. These two clusters of jobs allow for discussion of current AFSC structures and specialization of work currently being performed in the field and will be discussed independently in SECTION III - AFSC 2A4X2 (formerly 453X2) and SECTION IV - AFSC 2A1X3 (formerly 455X2). From this point on, ALL comparison of jobs (be it based on DAFSC, TE/TD, or AFR 39-1 information) will be based on these two created clusters (i.e., 2A4X2 and 2A1X3). It should be noted that total sample size for these two clusters is limited to only those individuals involved in the related technical AFSC-specific activities (i.e., on-equipment only = 2A4X2; on- and off-equipment or off-equipment only = 2A1X3). All support, administrative, training, and supervisory jobs were extracted from these two cluster totals to ensure that discussion henceforth would be on the "pure" technical nature of the 2A4X2 (formerly 453X2) and the 2A1X3 (formerly 455X2) AFSCs.

SECTION II

ANALYSIS OF AIRCRAFT COMMUNICATION AND NAVIGATION SYSTEMS DAFSC GROUPS

An analysis of Aircraft Communication and Navigation Systems (2A4X2) DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information may then be used to evaluate how well career ladder documents, such as AFR 39-1 Specialty Descriptions and the Specialty Training Standard (STS), reflect what career ladder personnel are actually doing in the field.

The distribution of skill-level groups across the specialty jobs is displayed in Table 3, while Table 4 offers another perspective by displaying the relative percent time spent on each duty across the DAFSC 2A4X2 skill-level groups. A typical pattern of progression is present, with personnel spending more of their relative time on duties involving supervisory, managerial, and training tasks as they move toward the 7-skill level. It is also obvious that 7-skill level personnel are still involved with technical task performance.

Skill-Level Descriptions

DAFSC 2A432. The 281 airmen in this 3-skill level group perform an average of 120 tasks, with 72 tasks accounting for 50 percent of their relative job time. Eighty-seven percent of their relative job time is spent on core AFSC-specific technical duties covering general and aircraft-specific maintenance on communication and navigation systems (see Table 4). An additional 8 percent of their relative job time is devoted to general administrative functions. Table 5 displays selected representative tasks performed by the highest percentages of these airmen.

DAFSC 2A452. The 541 airmen in this 5-skill level group perform an average of 147 tasks with 89 tasks accounting for over 50 percent of their relative job time. Performing a highly technical job, 81 percent of their relative job time is devoted to duty areas covering general and aircraft-specific maintenance pertaining to most communication and navigation systems (see Table 4). Tasks involving general administrative functions accounted for an additional 9 percent of their job time. Table 6 displays selected representative tasks performed by the highest percentages of these airmen. Table 7 displays those tasks which more clearly differentiate the 3-skill level and the 5-skill level groups. A review of the tasks performed reveals that 5-skill level members perform virtually the same technical AFSC 2A4X2 specific tasks as do the 3-skill level members. However, the 3-skill level members perform these tasks to slightly higher percentages. Most 5-skill level members indicate they perform some management or supervisory functions, although to a limited degree.

TABLE 3

DISTRIBUTION OF 2A4X2/2A1X3 DAFSC GROUP MEMBERS
ACROSS SPECIALTY JOBS
(PERCENT)

SPECIALTY JOBS	COMBINED DAFSC 2A432/2A133 (N=442)	COMBINED DAFSC 2A452/2A153 (N=1,003)	COMBINED DAFSC 2A472/2A173 (N=529)
I. FLIGHTLINE COMMUNICATION AND NAVIGATION SYSTEMS CLUSTER (N=996)	62%	62%	33%
II. SHOP COMMUNICATION AND NAVIGATION SYSTEMS CLUSTER (N=468)	24%	26%	18%
III. STAFF PERSONNEL CLUSTER (N=348)	1%	12%	42%
IV. BENCH CHECK MONITOR JOB (N=8)	2%	*	0%
V. AIRLIFT CONTROL ELEMENT JOB (N=7)	1%	*	0%
VI. MAINTENANCE ADMINISTRATION JOB (N=26)	*	2%	*
VII. RESOURCE MANAGEMENT JOB (N=7)	0%	0%	1%
NOT GROUPED (N=114)	10%	5%	4%

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 4

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES BY 2A4X2 DAFSC GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES		DAFSC 2A432 (N=281)	DAFSC 2A452 (N=541)	DAFSC 2A472 (N=197)
A.	ORGANIZING AND PLANNING	*	1	5
B.	DIRECTING AND IMPLEMENTING	*	2	6
C.	INSPECTING AND EVALUATING	1	4	8
D.	TRAINING	*	3	6
E.	PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	8	9	12
F.	PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	8	8	8
G.	PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	19	16	12
H.	MAINTAINING AVIONIC SYSTEM MOCKUPS, TEST STATIONS, AND PECULIAR TEST EQUIPMENT	*	*	1
I.	MAINTAINING RADIO SYSTEMS	13	10	7
J.	MAINTAINING RADIO NAVIGATION SYSTEMS	15	13	10
K.	MAINTAINING RADAR NAVIGATION SYSTEMS	9	8	6
L.	MAINTAINING IDENTIFICATION SYSTEMS	4	4	3
M.	MAINTAINING EMERGENCY SYSTEMS	2	2	2
N.	MAINTAINING INTERPHONE OR PUBLIC ADDRESS (PA) SYSTEMS	5	5	3
O.	MAINTAINING STATION KEEPING EQUIPMENT (SKE)	1	1	1
P.	MAINTAINING DATA LINK CONTROL SYSTEMS	*	*	*
Q.	PERFORMING CREW CHIEF CROSS-UTILIZATION TRAINING (CUT) DUTIES	11	14	10

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 5

REPRESENTATIVE TASKS PERFORMED
BY 2A432 PERSONNEL
(N=281)

TASKS		PERCENT MEMBERS PERFORMING
I364	Operationally check radio systems	91
G298	Safety wire avionic system equipment	88
G269	Inspect communications or navigations systems	86
G283	Operate powered aerospace ground equipment (AGE) , such as power units, heaters, or light carts	85
N794	Operationally check interphone systems	85
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	85
N796	Remove or install interphone system LRUs	83
I365	Operationally check UHF ADF systems	83
G292	Remove or install common hardware, such as switches, knobs, or faceplates	83
I377	Remove or install radio system LRUs, other than those requiring special handling	82
G299	Set up flightline maintenance stands	81
G291	Remove or install avionic system wiring, coaxial cables, or triaxial cables	81
G302	Trace signals through circuits using schematics or wiring diagrams	80
G290	Remove or install aircraft access plates or panels	80
J483	Remove or install radio navigation system LRUs, other than those requiring special handling	79
Q873	Perform tow team member duties	78
G282	Open or close radomes	78
J463	Operationally check ADF systems	77
J474	Operationally check TACAN systems using ground stations	77
J454	Isolate malfunctions in installed TACAN systems	77
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	77
J485	Remove or install TACAN antennas	76
J455	Isolate malfunctions in installed VOR systems	75
I360	Load Have Quick	75
I355	Isolate malfunctions in installed UHF ADF systems	73

Average number of tasks performed = 120

TABLE 6

REPRESENTATIVE TASKS PERFORMED
BY 2A452 PERSONNEL
(N=541)

TASKS		PERCENT MEMBERS PERFORMING
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	91
I364	Operationally check radio systems	90
G283	Operate powered aerospace ground equipment (AGE) , such as power units, heaters, or light carts	89
G298	Safety wire avionic system equipment	89
G269	Inspect communications or navigations systems	88
G299	Set up flightline maintenance stands	87
G292	Remove or install common hardware, such as switches, knobs, or faceplates	87
Q873	Perform tow team member duties	86
J454	Isolate malfunctions in installed TACAN systems	85
G300	Splice avionic system wiring	84
G290	Remove or install aircraft access plates or panels	84
G302	Trace signals through circuits using schematics or wiring diagrams	84
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	84
N794	Operationally check interphone systems	83
J474	Operationally check TACAN systems using ground stations	83
I377	Remove or install radio system LRUs, other than those requiring special handling	82
G291	Remove or install avionic system wiring, coaxial cables, or triaxial cables	82
N796	Remove or install interphone system LRUs	82
Q875	Position nonpowered or powered AGE to aircraft	81
G282	Open or close radomes	81
Q874	Position aircraft chocks	79
N791	Isolate malfunctions in installed interphone systems	79
J477	Operationally check VOR using ground stations	78
J455	Isolate malfunctions in installed VOR systems	78
J463	Operationally check ADF systems	77
G266	Fabricate coaxial or triaxial cables	77
J485	Remove or install TACAN antennas	77
J483	Remove or install radio navigation system LRUs, other than those requiring special handling	76
N793	Isolate malfunctions in interphone cords	76
I362	Operate associated systems while checking radio systems	75

Average number of tasks performed = 147

TABLE 7

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2A432 AND DAFSC 2A452 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		2A432 (N=281)	2A452 (N=541)	DIFF
I365	Operationally check UHF ADF systems	83	67	16
I355	Isolate malfunctions in installed UHF ADF systems	73	58	15
I366	Operationally check VHF FM radio homing systems	53	41	12
O825	Remove or install SKE system LRUs, other than those requiring special handling	29	19	10
I325	Adjust or align ultra-high frequency (UHF) automatic direction finder (ADF) amplifiers	16	7	9
O823	Remove or install SKE antenna pedestal components	24	15	9
O824	Remove or install SKE antennas	25	18	7
I322	Adjust or align radio frequency indicators, such as dial readouts or knob positions	26	19	7
I319	Adjust or align radio control units	20	13	7
K629	Operationally check doppler navigation systems	54	47	7
C107	Write EPRs	2	50	-48
D112	Conduct OJT	21	62	-41
C66	Conduct performance feedback (PFW) sessions	5	45	-40
B59	Supervise Communication/Navigation Systems Specialists (AFSC 45552)	4	42	-38
C82	Evaluate subordinates' compliance with performance standards	2	39	-37
D116	Counsel trainees on training progress	5	40	-35
D117	Demonstrate operation of equipment	23	57	-34
C91	Inspect completed jobs	14	47	-33
C83	Evaluate subordinates' compliance with work standards	3	36	-33
C100	Provide technical assistance for job-related problems encountered by subordinates	12	45	-33

DAFSC 2A472. The 197 NCOs in this 7-skill level group perform an average of 163 tasks, with 104 tasks accounting for over 50 percent of their relative job time. Twenty-five percent of their relative job time is spent on the usual supervisory, managerial, and training duties (see Table 4). While the display of tasks in Table 8 clearly shows supervisory responsibilities, it also reflects the range and scope of the job, in that these 7-skill level members are still spending 63 percent of their relative job time performing a variety of routine communication and navigation technical tasks. Table 9 displays those tasks which more clearly differentiate the differences between the 5-skill level and 7-skill level groups and also reflects the supervisory responsibilities incumbent to the 7-skill level population. The top tasks performed by the 5-skill levels are technical in nature, whereas the top tasks performed by the 7-skill levels cover non-AFSC specific functions, concentrating on the supervisory and management functions.

Summary

Three-skill level and 5-skill level airmen perform many tasks in common, and both groups spend the vast majority of their relative job time performing technical, AFSC-specific maintenance tasks. The 5-skill level group, while performing the technical part of their job, also reflects that some of their duty day is taken up by supervisory and management tasks. At the 7-skill level, although members still perform a substantial amount of routine day-to-day technical communication and navigation systems maintenance, a more definite shift toward supervisory functions is evident (see Tables 3 and 4).

ANALYSIS OF 2A4X2 (formerly 453X2) AFR 39-1 SPECIALTY DESCRIPTIONS

Survey data were compared to the AFR 39-1 Specialty Descriptions for Aircraft Communication and Navigation Systems Specialist and Aircraft Communication and Navigation Systems Technician both dated 31 October 1992.

The 3-/5-skill level specialty description appears complete and accurately portrays the range and technical nature of the job. The description for the technician (AFSC 2A472) accurately reflects both the supervisory and the previously discussed technical nature of job.

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY 2A472 PERSONNEL
(N=197)

TASKS		PERCENT MEMBERS PERFORMING
C107	Write EPRs	86
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	85
G269	Inspect communications or navigations systems	83
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	82
G299	Set up flightline maintenance stands	82
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	81
I364	Operationally check radio systems	81
G290	Remove or install aircraft access plates or panels	80
N794	Operationally check interphone systems	79
G302	Trace signals through circuits using schematics or wiring diagrams	79
G292	Remove or install common hardware, such as switches, knobs, or faceplates	79
E203	Make entries on AFTO Forms 781 series (AFORM Aircrew/Mission Flight Data Document)	78
B32	Counsel subordinates on personal or military-related problems	78
Q873	Perform tow team member duties	77
G298	Safety wire avionic system equipment	77
N796	Remove or install interphone system LRUs	77
B59	Supervise Communication/Navigation Systems Specialists (AFSC 45552)	76
J474	Operationally check TACAN systems using ground stations	76
Q875	Position nonpowered or powered AGE to aircraft	75
G300	Splice avionic system wiring	75
G266	Fabricate coaxial or triaxial cables	74
J454	Isolate malfunctions in installed TACAN systems	74
F237	Access core automated maintenance system (CAMS) menus and data screens	73
G282	Open or close radomes	73
G291	Remove or install avionic system wiring, coaxial cables, or triaxial cables	73
E168	Locate maintenance information in TOs	72
I362	Operate associated systems while checking radio systems	72

Average number of tasks performed = 163

TABLE 9

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2A452 AND DAFSC 2A472 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 2A452 (N=541)	DAFSC 2A472 (N=197)	DIFF
Q853	Change light bulbs	65	49	16
Q852	Bleed brake systems	33	17	16
Q896	Wash aircraft	37	21	16
Q866	Perform or assist in engine run tests	49	34	15
G264	Clean avionic equipment	69	54	15
Q864	Perform fire guard duties	65	52	13
L734	Key KITs or KIRs	71	59	12
G298	Safety wire avionic system equipment	89	77	12
Q865	Perform or assist in engine changes	42	30	12
Q856	Ground aircraft	72	60	12
B60	Supervise Communication/Navigation Systems Technicians (AFSC 45572)	8	55	-47
A27	Schedule work assignments	16	57	-41
A21	Prepare duty rosters	7	47	-40
B32	Counsel subordinates on personal or military-related problems	38	78	-40
A26	Schedule leaves, passes, or temporary duty (TDY) trips	6	45	-39
A3	Coordinate work with other sections	34	71	-37
C107	Write EPRs	50	86	-36
B59	Supervise Communication/Navigation Systems Specialists (AFSC 45552)	42	76	-34
B61	Supervise military personnel with AFSCs other than 455X2	26	59	-33
B33	Direct flightline maintenance activities	29	61	-32

ANALYSIS OF MAJOR COMMANDS (MAJCOMs)

Tasks and background data for personnel of the seven MAJCOMs with the largest AFSC 2A4X2 populations were compared to determine whether job content varied as a function of command assignment.

Generally, the jobs performed across the commands were similar, with many tasks performed in common. The largest percentages of duty time in each command were committed to the performance of tasks involving general avionic system maintenance, maintaining radio systems, performing general administrative and supply functions, and performing core automated maintenance system (CAMS) activities (see Table 10). Minor variances were noted, with AMC reporting significantly more time spent on performing crew chief cross-utilization training (CUT) tasks.

TRAINING ANALYSIS

Occupational survey data are one of the many sources of information which can be used to assist in the development of a training program relevant to the needs of personnel in their first enlistment. Factors which may be used in evaluating training include the overall description of the jobs being performed by first-enlistment personnel and their overall distribution across career, ladder jobs, percentages of first-job (1-24 months' TAFMS) or first-enlistment (1-48 months' TAFMS) members performing specific tasks or using certain equipment or tools, as well as TE and TD ratings (previously explained in the **SURVEY METHODOLOGY** section).

To assist specifically in evaluation of the STS, SMEs TDY to USAFOMS matched job inventory tasks to appropriate sections and subsections of the AFSC 453X2 STS, permitting a comparison between the existing STS and survey results. A complete computer listing displaying the percent members performing tasks, TE and TD ratings for each task, along with the STS matchings, has been forwarded to the technical school for their use in further detailed reviews of appropriate training documents. A summary of this information is presented below.

First-Enlistment Personnel

In this study, there are 376 members in their first enlistment (1-48 months' TAFMS). First-enlistment personnel perform a highly technical job, accounting for approximately 98 percent of their relative job time (see Table 11). While Table 11 shows that first-enlistment airmen are involved in maintenance activities pertaining to various communication and navigation systems, it

TABLE 10

PERCENTAGE OF TIME SPENT ON DUTIES BY 2A4X2 MAJCOM GROUPS

TASKS	AMC (N=539)	ACC (N=288)	AFSOC (N=68)	USAFE (N=48)	AFMC (N=33)	PACAF (N=27)	ATC (N=16)
A. ORGANIZING AND PLANNING	1	2	2	2	3	1	3
B. DIRECTING AND IMPLEMENTING	2	2	3	3	3	2	4
C. INSPECTING AND EVALUATING	4	4	4	5	5	4	6
D. TRAINING	3	3	3	3	4	3	9
E. PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	9	10	11	11	11	12	13
F. PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	6	11	9	10	7	8	11
G. PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	16	16	15	17	14	17	15
H. MAINTAINING AVIONIC SYSTEM MOCKUPS, TEST STATIONS, AND PECULIAR TEST EQUIPMENT	*	*	*	0	2	0	2
I. MAINTAINING RADIO SYSTEMS	9	12	13	10	9	11	7
J. MAINTAINING RADIO NAVIGATION SYSTEMS	13	13	14	13	13	12	13
K. MAINTAINING RADAR NAVIGATION SYSTEMS	8	7	10	5	8	8	4
L. MAINTAINING IDENTIFICATION SYSTEMS	4	4	4	6	4	4	6
M. MAINTAINING EMERGENCY SYSTEMS	3	1	2	2	3	1	*
N. MAINTAINING INTERPHONE OR PUBLIC ADDRESS (PA) SYSTEMS	5	4	4	4	3	5	3
O. MAINTAINING STATION KEEPING EQUIPMENT (SKE)	1	*	*	1	*	2	1
P. MAINTAINING DATA LINK CONTROL SYSTEMS	*	1	0	0	*	1	0
Q. PERFORMING CREW CHIEF CROSS-UTILIZATION TRAINING (CUT) DUTIES	(17)	8	5	9	10	9	2

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 11

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY
2A4X2 FIRST-ENLISTMENT PERSONNEL

DUTIES		PERCENT TIME SPENT
A.	ORGANIZING AND PLANNING	*
B.	DIRECTING AND IMPLEMENTING	*
C.	INSPECTING AND EVALUATING	1
D.	TRAINING	1
E.	PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	8
F.	PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	8
G.	PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	19
H.	MAINTAINING AVIONIC SYSTEM MOCKUPS, TEST STATIONS, AND PECULIAR TEST EQUIPMENT	*
I.	MAINTAINING RADIO SYSTEMS	13
J.	MAINTAINING RADIO NAVIGATION SYSTEMS	15
K.	MAINTAINING RADAR NAVIGATION SYSTEMS	9
L.	MAINTAINING IDENTIFICATION SYSTEMS	5
M.	MAINTAINING EMERGENCY SYSTEMS	2
N.	MAINTAINING INTERPHONE OR PUBLIC ADDRESS (PA) SYSTEMS	5
O.	MAINTAINING STATION KEEPING EQUIPMENT (SKE)	1
P.	MAINTAINING DATA LINK CONTROL SYSTEMS	*
Q.	PERFORMING CREW CHIEF CROSS-UTILIZATION TRAINING (CUT) DUTIES	12

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

is clear that the largest percentage of their job time is spent on tasks pertaining to general avionic system maintenance and radio navigation systems maintenance activities. Table 12 displays some representative tasks performed by the group and reflects the performance of general communication and navigation system maintenance.

One of the objectives of this survey project was to gather data for the training center pertaining to various types of aircraft on which communication and navigation systems are maintained, electronic principles employed, and types of equipment used. Accordingly, Tables 13 through 15 present percentages of first-job and first-enlistment airmen responding to questions concerning their activities involving these items. This type of information is useful for both technical school and MAJCOM training personnel to assist them in focusing limited training time or other resources on the most utilized items. Table 13 illustrates that on-equipment communication and navigation maintenance performed by first-enlistment personnel is concentrated on the C-130, KC-135, and C-141 aircraft. Table 14 illustrates the basic electronic principles employed by both first-job and first-enlistment personnel. Table 15 illustrates that VOR/ILS, IFF/AIMS, and TACAN flightline test sets and digital multimeters are used by almost all first-job and first-enlistment personnel.

TE and TD Data

TE and TD data are secondary factors that can assist technical school personnel in deciding which tasks should be emphasized in entry-level training. These ratings, based on the judgments of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank-ordering of those tasks in the JI considered important for first-enlistment personnel training (TE) (see Table 16 for the highest rated tasks), along with a measure of the difficulty of the job inventory tasks (TD) (see the highest rated tasks presented in Table 17). A total of 142 tasks were rated high in TE (i.e., having a TE rating of over 2.35), with 88 percent of these tasks matched to the STS. Those tasks rated high in TE include isolating specific maintenance malfunctions, and documenting and repairing malfunctions. Although these tasks are high in TE and viewed as necessary for training of first-enlistment personnel, these tasks for the most part are not viewed as difficult to learn. Tasks rated high in TD involve the complex supervisory and management activities. Technical tasks receiving high TD ratings involve maintaining doppler radar, FLR, and terrain radar; maintaining data link control systems; repairing SKE; maintaining mockups; isolating malfunctions and repairing AFSATCOM and related components; and boresighting and calibrating communication and navigation systems equipment. When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can then be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

TABLE 12

REPRESENTATIVE TASKS PERFORMED BY
2A4X2 FIRST-ENLISTMENT PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=376)
I364	Operationally check radio systems	91
G298	Safety wire avionic system equipment	88
G269	Inspect communications or navigations systems	87
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	86
G283	Operate powered aerospace ground equipment (AGE) , such as power units, heaters, or light carts	86
N794	Operationally check interphone systems	85
I377	Remove or install radio system LRUs, other than those requiring special handling	85
N796	Remove or install interphone system LRUs	85
G292	Remove or install common hardware, such as switches, knobs, or faceplates	84
G299	Set up flightline maintenance stands	83
I365	Operationally check UHF ADF systems	83
G290	Remove or install aircraft access plates or panels	82
J454	Isolate malfunctions in installed TACAN systems	81
G291	Remove or install avionic system wiring, coaxial cables, or triaxial cables	81
G302	Trace signals through circuits using schematics or wiring diagrams	81
Q873	Perform tow team member duties	81
J483	Remove or install radio navigation system LRUs, other than those requiring special handling	80
G282	Open or close radomes	79
J474	Operationally check TACAN systems using ground stations	78
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	78
J485	Remove or install TACAN antennas	78
J463	Operationally check ADF systems	77
J455	Isolate malfunctions in installed VOR systems	77
I360	Load Have Quick	76
G300	Splice avionic system wiring	75

TABLE 13

AIRCRAFT MAINTAINED BY 5 PERCENT OR MORE OF 2A4X2 FIRST-JOB AND FIRST-ENLISTMENT PERSONNEL

AIRCRAFT	PERCENT MEMBERS PERFORMING 1-24 MOS 1ST JOB (N=185)	1-48 MOS 1ST ENL (N=376)
KC-135A/R/T	28	23
C-130A/B/D/E	17	21
C-141A/B	15	18
B-52G/H	11	9
HH-1	9	5
C-5A/B	8	8
KC-10A	7	6
E-3B/C	6	6

TABLE 14

REPRESENTATIVE ELECTRONIC PRINCIPLES PERFORMED BY 2A4X2
FIRST-JOB AND FIRST-ENLISTMENT PERSONNEL

ELECTRONIC PRINCIPLES	PERCENT MEMBERS PERFORMING 1-24 MOS 1ST JOB (N=185)	1-48 MOS 1ST ENL (N=376
Use meters or multimeters to measure voltage	98	97
Solder connections	97	96
Work with antennas	94	93
Desolder connections	93	92
Use (perhaps in TOs) the term voltage or volt (V)	91	89
Use meters or multimeters to measure resistance	91	88
Work with flexible coaxial cable transmission lines	89	90
Work on AM transmit or receive systems	88	89
Work with relays	86	87
Work on transmit or receive systems	85	84
Work with waveguides or cavity resonators	83	79
Operate microphones	81	82
Perform any tasks dealing with speakers	81	82
Use or refer to schematic symbols which represent batteries, fuses conductors, lamps, or switches	81	82
Operate speakers	78	78
Work with FM transmit or receive systems	78	82
Perform tasks dealing with microphones or other sensing devices, such as transducers	70	73
Work with transmission lines (do not consider waveguides as transmission lines)	62	63
Work with digital-to-analog (D/A) converters or analog-to-digital (A/D) converters	62	57
Work with power supplies	61	54
Use or refer to video displays (CRTs)	56	55
Read meter scales	54	48
Use or refer to the alternating current (AC) term frequency	54	51

TABLE 15

EQUIPMENT ITEMS USED BY 30 PERCENT OR MORE OF 2A4X2
FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL

EQUIPMENT	PERCENT MEMBERS PERFORMING 1-24 MOS 1ST JOB (N=185)	1-48 MOS 1ST ENL (N=376)
Flightline Test Sets, VOR/ILS	96	96
Flightline Test Sets, IFF/AIMS	94	94
Multimeters, Digital	90	91
Flightline Test Sets, TACAN	89	90
Time Domain Reflectometers	73	72
Theodolites	69	66
Wattmeters, Thruline	69	74
Dummy Loads	61	58
Multimeters, Analog	54	62
Meters, Power	51	48
Flightline Test Sets, Radar Altimeter	45	45
Voltmeters, Analog	41	42
Flightline Test Sets, Search and Weather Radar	37	32
Meters, Voltage Standing Wave Ratio (VSWR)	33	33
Oscilloscopes	28	30

TABLE 16

TECHNICAL TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE) BY 2A4X2 PERSONNEL

TASKS		TNG EMP*	PERCENT MEMBERS PERFORMING 1ST JOB (N=185)	PERCENT MEMBERS PERFORMING 1ST ENL (N=376)	TASK DIFF**
E169	Locate part or stock numbers in technical publications	6.44	51	55	3.84
F244	Clear or closeout completed aircraft maintenance discrepancies in CAMS	6.38	63	68	4.18
E203	Make entries on AFTO Forms 781 series (AFORM Aircrew/Mission Flight Data Document)	6.34	60	63	3.65
F250	Open or close CAMS	6.34	61	64	2.76
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	6.06	82	86	4.22
E170	Locate stock numbers on microfiche	6.03	41	44	3.38
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	6.00	69	68	3.23
E168	Locate maintenance information in TOs	5.88	54	56	4.18
L740	Operationally check IFF using FTE	5.88	59	64	4.80
I364	Operationally check radio systems	5.78	89	91	4.43

* TE MEAN = .93.D. = 1.42 (High TE >= 2.35)
** TD MEAN = 5.00 S.D. = 1.00

TABLE 17

TASKS RATED HIGHEST IN TASK DIFFICULTY (TD) BY 2A4X2 PERSONNEL

TASKS		TASK DIFF*	PERCENT MEMBERS PERFORMING 1ST JOB (N=185)	1ST ENL (N=376)	DAFSC 2A452	DAFSC 2A472	TNG EMP**
A11	Draft budget requirements	7.68	1	1	1	7	0
A6	Develop budget or financial requirements	7.49	0	0	1	6	0
K610	Calibrate installed FLR systems	7.42	1	1	1	1	.25
D148	Write or revise CDCs	7.31	0	0	0	1	0
C73	Evaluate engineering change proposals	7.21	1	1	1	7	0
A7	Develop cost-reduction programs	7.04	0	1	1	5	0
A29	Write staff studies, surveys. or special reports, other than training reports	7.00	0	0	2	12	.38
C72	Evaluate budget or financial requirements	6.95	1	1	1	3	.00
K609	Boresight radar navigation system antennas	6.89	3	4	5	6	.00
H308	Fabricate avionic system mockups	6.86	1	2	2	5	.25

* TD MEAN = 5.00 S.D. = 1.00

** TE MEAN = .93 S.D. = 1.42 (High TE >= 2.35)

To assist technical school personnel, USAFOMS has developed a computer program that incorporates these secondary factors and the percentage of first-enlistment personnel performing each task to produce an Automated Training Indicator (ATI) for each task. These indicators correspond to training decisions listed and defined in the Training Decision Logic Table found in Attachment 1, AETCR 52-22, and allow course personnel to quickly focus their attention on those tasks which are most likely to qualify for ABR course consideration.

Various lists of tasks, accompanied by TE and TD ratings, and where appropriate, ATI information, are contained in the TRAINING EXTRACT package and should be reviewed in detail by technical school personnel. (For a more detailed explanation of TE and TD ratings, see Task Factor Administration in the **SURVEY METHODOLOGY** section of this report.)

Specialty Training Standard (STS)

A comprehensive review of the AFSC 453X2 STS, dated May 1992, compared line items to survey data based on the previously mentioned match of tasks to STS elements. STS paragraphs containing general knowledge information, mandatory entries, subject-matter-knowledge-only requirements, or basic supervisory responsibilities were not examined. Task knowledge, performance elements, and dashed/"-" entries of the STS were compared against the standard set forth in AFR 8-13 (dated 1 August 1986) and AFR 8-13/ATC Supplement 1 (dated 2 March 1987), Attachment 1, paragraph A1-3c(4) whereby requiring inclusion of these tasks performed or knowledge required by 20 percent or more of the personnel in a skill level (criterion group) of that AFS.

Overall, the STS provides comprehensive coverage of the work performed by personnel in this career ladder, with survey data supporting most of the essential paragraphs or subparagraphs. Even though some elements did not have high percentages of personnel performing matched tasks, the fact that the supporting tasks were a part of an identifiable job being performed in the career ladder supports the retention of the STS element involving those tasks.

Some elements of the 453X2 STS were not supported by occupational data and do require review by training personnel and SMEs. Table 18 displays examples of these line items and survey data pertaining to tasks matched to these elements. Survey data on several on-equipment communication and navigation systems reflected that "remove system LRUs" and "install system LRUs" actions were performed by less than 20 percent of members responding. These actions covered communication and navigation systems, such as UHF radio, UHF AM/FM radio, AFSATCOM, and voice warning. A complete listing of STS paragraphs not supported by occupational data can be found in the Training Extract. These tasks reflect low task performance figures which necessitate evaluation to justify retention in the STS.

TABLE 18

EXAMPLES OF 453X2 STS ELEMENTS NOT SUPPORTED BY SURVEY DATA
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS ITEMS (with selected matched tasks)		3-LEVEL COURSE PROF CODE	PERCENT MEMBERS PERFORMING: TNG EMP*	1ST ENL (N=376)	DAFSC 2A452 (N=541)	DAFSC 2A472 (N=197)	TASK DIFF**
11c(3)	Repair peculiar test equipment	-					
H316	Repair peculiar test equipment		0	2	3	6	6.32
14d(3)	Remove UHF radio system LRUs	-					
I395	Retrofit VHF into UHF positions		.94	8	5	7	4.93
14k(4)	Install AFSATCOM system LRUs	-					
I371	Remove or install AFSATCOM antennas		1.34	19	19	18	4.68
14m(1)	Perform operational check on voice warning systems	-					
M772	Operationally check voice warning systems		.59	6	9	12	4.23
14x(2)	Isolate malfunctions in terrain radar	-					
J623	Isolate malfunctions in installed terrain following/terrain avoidance systems, other than FLRs		.66	7	8	5	6.65

* TE MEAN = .93 S.D. = 1.42 (High TE >= 2.35)
** TD MEAN = 5.00 S.D. = 1.00

Tasks not matched to any element of the 453X2 STS are listed at the end of the STS computer listing. These were reviewed to determine if there were any tasks concentrated around any particular functions or jobs. Examples of technical tasks performed by 20 percent or more respondents of the STS target groups, but which were not referenced to any STS element, are displayed in Table 19. Technical tasks not matched to the 453X2 STS deal predominantly with "adjust or align," "bench check," "repair," and some "isolate malfunction" actions on most communication and navigation systems. Training personnel and SMEs should review these and other eligible unreferenced tasks to determine if inclusion in the STS is justified.

TABLE 19

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE 2A4X2 GROUP MEMBERS AND NOT REFERENCED TO THE 453X2 STS

TASKS		PERCENT MEMBERS PERFORMING 1ST ENL (N=376)	DAFSC 2A452 (N=541)	DAFSC 2A472 (N=197)	TNG EMP*	TASK DIFF**
E210	Perform aircrew debriefs	36	48	54	1.78	4.20
G276	Isolate malfunctions in avionic pressurization systems	43	45	46	1.69	5.19
G282	Open or close radomes	79	81	73	2.62	3.42
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	86	89	85	4.88	3.68
G290	Remove or install aircraft access plates or panels	54	56	50	2.06	4.26
I377	Remove or install radio system LRUs, other than those requiring special handling	85	82	71	3.97	4.19
J457	Isolate malfunctions in navigation indicator selector panels	32	37	37	2.81	5.08
J483	Remove or install radio navigation system LRUs, other than those requiring special handling	80	76	69	3.25	3.93
K628	Operationally check color radar systems	30	37	32	2.56	5.26
K642	Remove or install radar navigation system LRUs, other than those requiring special handling	64	66	60	3.00	4.52
L736	Operate associated systems while checking IFF systems	58	62	60	3.31	4.31
Q860	Jack and level aircraft	43	54	45	1.59	5.11
Q872	Perform or assist in thru flight inspections	28	42	32	1.03	4.24
Q875	Position nonpowered or powered AGE to aircraft	70	81	75	3.06	3.44

* TE MEAN = .93 S.D. = 1.42 (High TE >= 2.35)
** TD MEAN = 5.00 S.D. = 1.00

SECTION III

ANALYSIS OF COMMUNICATION AND NAVIGATION SYSTEMS DAFSC GROUPS

An analysis of Communication and Navigation Systems DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information may then be used to evaluate how well career ladder documents, such as AFR 39-1 Specialty Descriptions and the STS, reflect what career ladder personnel are actually doing in the field.

The distribution of skill-level groups across the specialty jobs is displayed in Table 3, while Table 20 offers another perspective by displaying the relative percent time spent on each duty across the AFSC 2A1X3 skill-level groups. A typical pattern of progression is present, with personnel spending more of their relative time on duties involving supervisory, managerial, and training tasks as they move toward the 7-skill level. It is also obvious that 7-skill level personnel are still involved with technical task performance.

Skill-Level Descriptions

DAFSC 2A133. The 150 airmen in this 3-skill level group perform an average of 121 tasks, with 83 accounting for over 50 percent of their relative job time. Eighty-three percent of their relative job time is spent on core AFSC-specific technical tasks duties covering general and aircraft-specific maintenance on communication and navigation systems (see Table 20). An additional 14 percent of their relative job time spent in general administrative functions. Table 21 displays selected representative tasks performed by the highest percentages of these airmen.

DAFSC 2A153. The 360 airmen in this 5-skill level group perform an average of 181 tasks with 143 tasks accounting for over 50 percent of their relative job time. Performing a highly technical job, 71 percent of their relative duty time is devoted to duty areas covering general and aircraft-specific maintenance pertaining to most communication and navigation systems (see Table 20). Tasks involving general administrative functions accounted for an additional 14 percent of their duty time. Table 22 displays selected representative tasks performed by the highest percentages

TABLE 20

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES
BY 2A1X3 DAFSC GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES		DAFSC 2A133 (N=150)	DAFSC 2A153 (N=360)	DAFSC 2A173 (N=132)
A.	ORGANIZING AND PLANNING	*	2	7
B.	DIRECTING AND IMPLEMENTING	*	3	8
C.	INSPECTING AND EVALUATING	2	5	10
D.	TRAINING	1	4	8
E.	PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	14	14	15
F.	PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	7	6	6
G.	PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	16	11	9
H.	MAINTAINING AVIONIC SYSTEM MOCKUPS, TEST STATIONS, AND PECULIAR TEST EQUIPMENT	7	5	4
I.	MAINTAINING RADIO SYSTEMS	14	12	7
J.	MAINTAINING RADIO NAVIGATION SYSTEMS	12	12	9
K.	MAINTAINING RADAR NAVIGATION SYSTEMS	13	13	8
L.	MAINTAINING IDENTIFICATION SYSTEMS	5	5	3
M.	MAINTAINING EMERGENCY SYSTEMS	1	1	1
N.	MAINTAINING INTERPHONE OR PUBLIC ADDRESS (PA) SYSTEMS	4	3	2
O.	MAINTAINING STATION KEEPING EQUIPMENT (SKE)	1	1	1
P.	MAINTAINING DATA LINK CONTROL SYSTEMS	*	*	*
Q.	PERFORMING CREW CHIEF CROSS-UTILIZATION TRAINING (CUT) DUTIES	2	2	2

* Less than 1 percent

TABLE 21

REPRESENTATIVE TASKS PERFORMED
BY 2A133 PERSONNEL
(N=150)

TASKS		PERCENT MEMBERS PERFORMING
G269	Inspect communications or navigations systems	83
H303	Adjust or align mockup LRUs	81
G264	Clean avionic equipment	80
H305	Bench check mockup LRUs	77
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	77
H304	Adjust or align mockup shop replaceable units (SRUs)	77
G292	Remove or install common hardware, such as switches, knobs, or faceplates	76
G284	Perform corrosion control on avionic equipment	76
G265	Clean facilities	75
H313	Remove or install mockup SRUs	75
G302	Trace signals through circuits using schematics or wiring diagrams	75
E168	Locate maintenance information in TOs	75
E169	Locate part or stock numbers in technical publications	74
G266	Fabricate coaxial or triaxial cables	73
I342	Bench check radio RTs	72
I323	Adjust or align radio receiver/transmitters (RTs)	71
E170	Locate stock numbers on microfiche	71
H315	Repair mockup LRUs	69
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	69
H312	Remove or install mockup LRUs	69
H309	Inspect avionic system mockups	69
F237	Access core automated maintenance system (CAMS) menus and data screens	67
I390	Repair radio RTs	67
E201	Make entries on AFTO Forms 349 (Maintenance Data Collection Record)	65
G298	Safety wire avionic system equipment	63
F250	Open or close CAMS	62
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	61

Average number of tasks performed = 121

TABLE 22

REPRESENTATIVE TASKS PERFORMED
BY 2A153 PERSONNEL
(N=360)

TASKS		PERCENT MEMBERS PERFORMING
G264	Clean avionic equipment	85
G266	Fabricate coaxial or triaxial cables	84
E168	Locate maintenance information in TOs	84
E169	Locate part or stock numbers in technical publications	84
G269	Inspect communications or navigations systems	82
G302	Trace signals through circuits using schematics or wiring diagrams	82
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	82
E170	Locate stock numbers on microfiche	79
G265	Clean facilities	78
G292	Remove or install common hardware, such as switches, knobs, or faceplates	77
G284	Perform corrosion control on avionic equipment	76
H303	Adjust or align mockup LRUs	76
H305	Bench check mockup LRUs	75
G268	Identify test equipment malfunctions	74
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	74
H304	Adjust or align mockup shop replaceable units (SRUs)	73
F237	Access core automated maintenance system (CAMS) menus and data screens	71
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	71
G267	Fabricate multiple wire cables	71
F250	Open or close CAMS	70
E166	Inventory CTKs	70
I323	Adjust or align radio receiver/transmitters (RTs)	70
G298	Safety wire avionic system equipment	70
H313	Remove or install mockup SRUs	69
H309	Inspect avionic system mockups	69
H315	Repair mockup LRUs	69

Average number of tasks performed = 181

of these airmen. Table 23 displays those tasks which more clearly differentiate the 3-skill level and the 5-skill level groups. A review of the tasks performed reveals that 5-skill level members perform virtually the same technical AFSC-specific tasks as does the 3-skill level members. However, the 3-skill level members perform these tasks to a slightly higher degree. The 5-skill level members indicate that they perform, to a limited degree, some management or supervisory functions.

DAFSC 2A173. These 132 7-skill level NCOs perform an average of 208 tasks, with 144 tasks accounting for over 50 percent of their relative job time. Thirty-three percent of their relative job time is spent on supervisory, managerial, and training duties (see Table 20). While the display of tasks in Table 24 clearly shows supervisory responsibilities, it also reflects the range and scope of the job, in that they are also technicians performing a variety of routine technical tasks. Fifty-two percent of the 7-skill level members' relative job time is spent on communication and navigation systems maintenance. Table 25 presents tasks which show differences between the 5-skill level and 7-skill level groups. The top tasks performed by the 5-skill levels are technical in nature, whereas the top tasks performed by the 7-skill level cover non-AFSC specific functions, concentrating on the supervisory and management function.

Summary

Three-skill level and 5-skill level airmen perform many tasks in common, and both groups spend the vast majority of their relative job time performing technical maintenance tasks. The 5-skill airmen indicate that some of their relative job time is spent on supervisory and management functions. At the 7-skill level, although members still perform a substantial amount of routine day-to-day technical communication and navigation systems maintenance, a shift toward supervisory functions is evident (see Tables 3 and 4).

ANALYSIS OF AFSC 2A1X3 (formerly 455X2) AFR 39-1 SPECIALTY DESCRIPTIONS

Survey data were compared to the AFR 39-1 Specialty Descriptions for Communication and Navigation Systems Specialist and Communication and Navigation Systems Technician, both dated 31 October 1992.

The 3-/5-skill level specialty description appears complete and accurately portrays the range and technical nature of the job. The description for the technician (AFSC 2A173) accurately reflects both the supervisory and the previously discussed technical nature of job.

TABLE 23

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2A133 AND DAFSC 2A153 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		2A133 (N=510)	2A153 (N=132)	DIFF
H313	Remove or install mockup SRUs	75	69	6
H303	Adjust or align mockup LRUs	81	76	5
G263	Bench check aircraft intrusion detection (AID) systems line replaceable units (LRUs)	10	5	5
I342	Bench check radio RTs	72	68	4
H304	Adjust or align mockup shop replaceable units (SRUs)	77	73	4
I366	Operationally check VHF FM radio homing systems	27	24	3
I327	Adjust or align very-high frequency (VHF) frequency modulated (FM) radio homing systems	28	25	3
I319	Adjust or align radio control units	57	55	2
H305	Bench check mockup LRUs	12	10	2
K569	Bench check doppler sensor RTs	15	13	2
C107	Write EPRs	1	51	-50
C66	Conduct performance feedback (PFW) sessions	1	48	-47
B32	Counsel subordinates on personal or military-related problems	1	48	-47
B59	Supervise Communication/Navigation Systems Specialists (AFSC 45552)	1	47	-46
C100	Provide technical assistance for job-related problems encountered by subordinates	13	57	-44
C82	Evaluate subordinates' compliance with performance standards	1	44	-43
C83	Evaluate subordinates' compliance with work standards	1	42	-41
C91	Inspect completed jobs	3	44	-41
A5	Determine work priorities	10	50	-40
D112	Conduct OJT	25	62	-37

TABLE 24

REPRESENTATIVE TASKS PERFORMED
BY 2A173 PERSONNEL
(N=132)

TASKS		PERCENT MEMBERS PERFORMING
G269	Inspect communications or navigations systems	85
C107	Write EPRs	83
B32	Counsel subordinates on personal or military-related problems	83
E168	Locate maintenance information in TOs	82
A5	Determine work priorities	81
C66	Conduct performance feedback (PFW) sessions	81
A3	Coordinate work with other sections	80
G302	Trace signals through circuits using schematics or wiring diagrams	80
B59	Supervise Communication/Navigation Systems Specialists (AFSC 45552)	79
E169	Locate part or stock numbers in technical publications	78
G264	Clean avionic equipment	78
C100	Provide technical assistance for job-related problems encountered by subordinates	77
C82	Evaluate subordinates' compliance with performance standards	77
E170	Locate stock numbers on microfiche	77
C91	Inspect completed jobs	77
D117	Demonstrate operation of equipment	77
G284	Perform corrosion control on avionic equipment	76
C92	Inspect consolidated tool kits (CTKs)	75
G266	Fabricate coaxial or triaxial cables	75
C83	Evaluate subordinates' compliance with work standards	74
D112	Conduct OJT	74
D134	Instruct personnel on equipment maintenance or repair techniques	73
G268	Identify test equipment malfunctions	73
F237	Access core automated maintenance system (CAMS) menus and data screens	72
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	72
D118	Demonstrate procedures for locating technical information	71
D116	Counsel trainees on training progress	70

Average number of tasks performed = 208

TABLE 25

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2A153 AND DAFSC 2A173 PERSONNEL
(PERCENT MEMBERS PERFORMING)

DUTIES		2A153 (N=510)	2A173 (N=132)	DIFF
E201	Make entries on AFTO Forms 349 (Maintenance Data Collection Record)	68	48	20
I342	Bench check radio RTs	68	50	18
I323	Adjust or align radio receiver/transmitters (RTs)	70	52	18
I359	Isolate malfunctions to radio system SRUs	56	40	16
J440	Bench check TACAN control boxes	61	45	16
I319	Adjust or align radio control units	55	39	16
I337	Bench check radio control units	58	42	16
I390	Repair radio RTs	65	50	15
J443	Bench check VOR control boxes	49	34	15
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	82	67	15
B60	Supervise Communication/Navigation Systems Technicians (AFSC 45572)	10	69	-59
A27	Schedule work assignments	23	69	-46
A26	Schedule leaves, passes, or temporary duty (TDY) trips	11	57	-46
A21	Prepare duty rosters	11	55	-44
B54	Interpret policies, directives, or procedures for subordinates	26	68	-42
B31	Conduct or participate in staff meetings	16	58	-42
D109	Assign on-the-job training (OJT) trainers	14	51	-37
C87	Evaluate work schedules	14	51	-37
A1	Assign personnel to duty positions	13	48	-35
C62	Analyze workload requirements	14	49	-35

ANALYSIS OF MAJOR COMMANDS (MAJCOMs)

Tasks and background data for personnel of the seven MAJCOMs with the largest number of AFSC 2A1X3 respondents were compared to determine whether job content varied as a function of command assignment.

Generally, the jobs performed across the commands were similar, with many tasks performed in common. The largest percentages of duty time in each command were committed to the performance of tasks involving general avionics system maintenance, maintaining radio systems, maintaining radio and radar navigation systems, and performing general administrative and supply functions (see Table 26). Minor variations were noted, with both AFSOC and PACAF reporting slightly more time spent on maintaining radar navigation systems.

TRAINING ANALYSIS

Occupational survey data are one of the many sources of information which can be used to assist in the development of a training program relevant to the needs of personnel in their first enlistment. Factors which may be used in evaluating training include the overall description of the job being performed by first-enlistment personnel, and their overall distribution across career ladder jobs, percentages of first-job (1-24 months TAFMS), or first-enlistment (1-48 months' TAFMS) members performing specific tasks or using certain equipment or tools, as well as TE and TD ratings (previously explained in the **SURVEY METHODOLOGY** section).

To assist specifically in evaluation of the STS, SMEs TDY to USAFOMS matched JI tasks to appropriate sections and subsections of the 455X2 STS. It was this matching upon which comparison to this document is based. A complete computer listing displaying the percent members performing tasks, TE and TD ratings for each task, along with the STS matchings, has been forwarded to the technical school for their use in further detailed reviews of appropriate training documents. A summary of this information is presented below.

First-Enlistment Personnel

In this study, there are 214 members in their first enlistment (1-48 months' TAFMS). First-enlistment personnel spend 97 percent of their relative job time performing AFSC-specific technical tasks (see Table 27). While Table 27 shows that first-enlistment airmen are involved in maintenance activities pertaining to various communication and navigation systems, it is clear that the largest percentage of their job time is spent on tasks pertaining to general avionic system maintenance and radio system maintenance activities. Table 28 displays representative tasks performed by the group and reflects the performance of general communication and navigation system maintenance.

TABLE 26

PERCENTAGE OF TIME SPENT ON DUTY BY 2A1X3 MAJCOM GROUPS

DUTIES		AMC (N=238)	ACC (N=180)	AFSOC (N=71)	USAFE (N=45)	AFMC (N=60)	PACAF (N=21)	ATC (N=25)
A.	ORGANIZING AND PLANNING	4	2	2	2	3	2	3
B.	DIRECTING AND IMPLEMENTING	4	3	3	3	3	3	3
C.	INSPECTING AND EVALUATING	6	5	5	6	5	5	6
D.	TRAINING	5	3	3	4	4	3	16
E.	PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	16	13	13	16	13	14	9
F.	PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	4	9	7	8	7	7	3
G.	PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	11	14	13	11	11	11	10
H.	MAINTAINING AVIONIC SYSTEM MOCKUPS, TEST STATIONS, AND PECULIAR TEST EQUIPMENT	4	7	7	8	5	4	5
I.	MAINTAINING RADIO SYSTEMS	11	12	12	11	11	8	8
J.	MAINTAINING RADIO NAVIGATION SYSTEMS	11	11	10	12	15	12	15
K.	MAINTAINING RADAR NAVIGATION SYSTEMS	10	12	(17)	9	11	(17)	10
L.	MAINTAINING IDENTIFICATION SYSTEMS	4	5	3	8	6	5	6
M.	MAINTAINING EMERGENCY SYSTEMS	2	1	1	*	2	2	*
N.	MAINTAINING INTERPHONE OR PUBLIC ADDRESS (PA) SYSTEMS	3	3	3	2	3	3	1
O.	MAINTAINING STATION KEEPING EQUIPMENT (SKE)	2	*	*	*	0	2	3
P.	MAINTAINING DATA LINK CONTROL SYSTEMS	*	1	0	*	*	1	*
Q.	PERFORMING CREW CHIEF CROSS-UTILIZATION TRAINING (CUT) DUTIES	4	1	1	*	1	2	*

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 27

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY
2A1X3 FIRST-ENLISTMENT PERSONNEL

DUTIES		PERCENT TIME SPENT
A.	ORGANIZING AND PLANNING	*
B.	DIRECTING AND IMPLEMENTING	*
C.	INSPECTING AND EVALUATING	2
D.	TRAINING	1
E.	PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	12
F.	PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	7
G.	PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	15
H.	MAINTAINING AVIONIC SYSTEM MOCKUPS, TEST STATIONS, AND PECULIAR TEST EQUIPMENT	7
I.	MAINTAINING RADIO SYSTEMS	14
J.	MAINTAINING RADIO NAVIGATION SYSTEMS	13
K.	MAINTAINING RADAR NAVIGATION SYSTEMS	14
L.	MAINTAINING IDENTIFICATION SYSTEMS	5
M.	MAINTAINING EMERGENCY SYSTEMS	1
N.	MAINTAINING INTERPHONE OR PUBLIC ADDRESS (PA) SYSTEMS	4
O.	MAINTAINING STATION KEEPING EQUIPMENT (SKE)	1
P.	MAINTAINING DATA LINK CONTROL SYSTEMS	*
Q.	PERFORMING CREW CHIEF CROSS-UTILIZATION TRAINING (CUT) DUTIES	2

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 28

REPRESENTATIVE TASKS PERFORMED BY
2A1X3 FIRST-ENLISTMENT PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=214)
G269	Inspect communications or navigations systems	86
G264	Clean avionic equipment	85
H303	Adjust or align mockup LRUs	80
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	79
G292	Remove or install common hardware, such as switches, knobs, or faceplates	79
G302	Trace signals through circuits using schematics or wiring diagrams	79
G265	Clean facilities	78
H305	Bench check mockup LRUs	77
G284	Perform corrosion control on avionic equipment	77
G266	Fabricate coaxial or triaxial cables	77
H304	Adjust or align mockup shop replaceable units (SRUs)	76
E169	Locate part or stock numbers in technical publications	74
E168	Locate maintenance information in TOs	74
H313	Remove or install mockup SRUs	73
I323	Adjust or align radio receiver/transmitters (RTs)	73
I342	Bench check radio RTs	72
E170	Locate stock numbers on microfiche	71
I390	Repair radio RTs	69
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	69
G298	Safety wire avionic system equipment	69
H312	Remove or install mockup LRUs	69
F237	Access core automated maintenance system (CAMS) menus and data screens	69
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	67
E201	Make entries on AFTO Forms 349 (Maintenance Data Collection Record)	66
F250	Open or close CAMS	66
I360	Load Have Quick	65

Average number or tasks performed = 136

One of the objectives of this survey project was to gather data for the training center pertaining to various types of aircraft on which communication and navigation systems are maintained, types of equipment used, and electronic principles employed. Accordingly, Tables 29 through 31 present percentages of first-job and first-enlistment airmen responding to questions concerning their activities involving these items. Table 29 illustrates that on- and off-equipment communication and navigation systems maintenance performed by first-enlistment personnel is predominantly spread out amongst cargo aircraft and the B-52 aircraft. Table 30 illustrates basic electronic principles employed by both first-job and first-enlistment personnel. Table 31 illustrates the many varied equipment items used by over 50 percent or more of first-job and first-enlistment personnel in order to isolate and then repair a malfunction in a communication and navigation system. This type of information is useful for both technical school and MAJCOM training personnel to assist them in focusing limited training time or other resources on the most utilized items.

TE and TD Data

TE and TD data are secondary factors that can assist technical school personnel in deciding which tasks should be emphasized in entry-level training. These ratings, based on the judgments of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank-ordering of those tasks in the JI considered important for first-enlistment personnel training (TE) (see Table 32 for the highest rated tasks), along with a measure of the difficulty of the JI tasks (TD) (see the highest rated tasks presented in Table 33). A total of 171 tasks were rated high in TE (i.e., with a TE rating of over 4.82), with 94 percent of these tasks matched to the STS. Tasks rated high in TE for first-enlistment personnel encompass those activities associated with the isolation and repair of communication and navigation systems and their components. These tasks are not only viewed as important for training first-enlistment personnel, but also tend to be somewhat difficult to learn. Tasks rated high in TD tend to center around the complex supervisory and management activities. Technical tasks rated high in TD involved maintaining doppler radar, FLR, and terrain radar; maintaining data link control systems; repairing SKE; maintaining mockups; isolating malfunctions and repairing AFSATCOM and related components; and boresighting and calibrating communication and navigation systems. When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can then be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

To assist technical school personnel, USAFOMS has developed a computer program that incorporates these secondary factors and the percentage of first-enlistment personnel performing each task to produce an ATI for each task. These indicators correspond to training decisions

TABLE 29

AIRCRAFT MAINTAINED BY 5 PERCENT OR MORE OF 2A1X3
FIRST-JOB AND FIRST-ENLISTMENT PERSONNEL

	PERCENT MEMBERS PERFORMING	
AIRCRAFT	1-24 MOS 1ST JOB (N=185)	1-48 MOS 1ST ENL (N=376)
KC-135A/R/T	22	20
C-141A/B	21	24
B-52G/H	20	14
C-130A/B/D/E	18	25
C-5A/B	11	14
E-3B/C	8	7
AC-130A/H	7	9
MC-130E/H	7	10
MH-53J	7	12
C-135A/B	6	7
RC-135E/M/S/U/V	6	5
EC-130E/H	5	6
EC-135C/K	5	7
E-4A/B	5	2
HC-130H/N/P	5	7
NKC-135	5	6
CT-39	5	5
NONE	14	12

TABLE 30

REPRESENTATIVE ELECTRONIC PRINCIPLES PERFORMED BY 2A1X3
FIRST-JOB AND FIRST-ENLISTMENT PERSONNEL

ELECTRONIC PRINCIPLES	PERCENT MEMBERS PERFORMING 1-24 MOS 1ST JOB (N=85)	1-48 MOS 1ST ENL (N=214)
Use meters or multimeters to measure voltage	98	98
Desolder connections	96	97
Solder connections	96	98
Use (perhaps in TOs) the term voltage or volt (V)	96	98
Work on transmit or receive systems	94	94
Use meters or multimeters to measure resistance	93	94
Use oscilloscopes	91	89
Work with power supplies	91	89
Use or refer to the schematic symbols which represent batteries or fuses, conductors lamps, or switches	88	92
Use signal generators	88	84
Work on AM transmit or receive systems	86	86
Work with relays	86	87
Work with antennas	85	86
Use instruments, such as meters or oscilloscopes, in which it is necessary to amplify or attenuate voltage, resistant, etc., by powers of 10	10	85
Work with flexible coaxial cable transmission lines	85	87
Align or adjust AM transmit or receive systems	84	79
Check resistors using ohmmeters	82	85
Use or refer to the alternating current (AC) term peak to peak voltage	82	84
Read meter scales	81	77
Work with FM transmit or receive systems	79	79
Use or refer to the alternating current (AC) term frequency	75	74
Work with oscillators	75	75
Work with waveguides or cavity resonators	74	76
Perform any tasks dealing with speakers	68	71
Work with cathode-ray tubes (CRT)	68	72
Work with semiconductor diodes	48	57

TABLE 31

EQUIPMENT ITEMS USED BY 50 PERCENT OR MORE OF 2A1X3 FIRST-JOB OR FIRST-ENLISTMENT PERSONNEL

EQUIPMENT	PERCENT MEMBERS PERFORMING 1-24 MOS 1ST JOB (N=85)	1-48 MOS 1ST ENL (N=214)
Multimeters, Digital	96	98
Dummy Loads	95	93
Oscilloscopes	91	80
Counters, Frequency	89	86
Attenuators	86	85
Generators, RF Signal	86	83
Voltmeters, Analog	86	81
Multimeters, Analog	85	85
Power Supplies, Low-Voltage	82	80
Distortion Analyzers	80	77
Generators, Signal	79	79
Meters, Power	78	82
Oscillators, Audio	78	77
Shop Test Sets, IFF/AIMS	72	69
Shop Test Sets, TACAN	72	71
Voltmeters, Integrating Digital	72	78
Wattmeters, Thruline	72	78
Meters, Frequency	68	71
Meters, Modulation/Deviation	68	71
Analyzers, Spectrum	65	64
Ammeters	65	64
Shop Test Sets, VOR/ILS	62	66
Meters, Audio	61	67
Shop Test Sets, Search and Weather Radar	61	62
Generators, Sweep	60	53
Couplers, Directional	58	54
Gauges, Air Pressure	55	57
Generators, Pulse	55	57
Wattmeters, other than Thruline	55	62
Voltmeters, Milli	54	60
Power Supplies, other than Low-Voltage	51	46
Meters, Voltage Standing Wave Ratio (VSWR)	49	50
Shop Test Sets, Radar Altimeter	47	52

TABLE 32

TECHNICAL TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE) BY 2A1X3 PERSONNEL

TASKS		TNG EMP*	PERCENT MEMBERS PERFORMING 1ST JOB (N=85)	1ST ENL (N=214)	TASK DIFF**
G302	Trace signals through circuits using schematics or wiring diagrams	7.09	72	79	6.02
I323	Adjust or align radio receiver/transmitters (RTs)	6.62	75	73	5.61
J413	Adjust or align TACAN RTs	6.47	59	62	5.59
E168	Locate maintenance information in TOs	6.41	75	74	4.18
E169	Locate part or stock numbers in technical publications	6.41	75	74	3.84
I390	Repair radio RTs	6.38	72	69	5.67
L723	Bench check IFF RT units	6.38	52	54	6.09
J445	Bench check TACAN RT units	6.32	55	63	5.20
J414	Adjust or align VHF omnirange (VOR) receivers	6.29	28	37	5.54
L709	Adjust or align IFF RT units	6.29	51	53	6.27

* TE MEAN = 3.12 S.D. = 1.70 (High TE >= 4.82)
** TD MEAN = 5.00 S.D. = 1.00

TABLE 33

TASKS RATED HIGHEST IN TASK DIFFICULTY (TD) BY 2A1X3 PERSONNEL

TASKS		TASK DIFF*	PERCENT MEMBERS PERFORMING 1ST JOB (N=85)	1ST ENL (N=214)	2A153	2A173	TNG EMP**
A11	Draft budget requirements	7.68	0	0	2	12	.82
A8	Develop organizational charts	7.49	0	0	2	16	.76
K610	Calibrate installed FLR systems	7.42	0	0	2	2	2.62
D148	Write or revise CDCs	7.31	0	0	0	1	.06
C73	Evaluate engineering change proposals	7.21	0	0	2	14	.26
A7	Develop cost-reduction programs	7.04	1	2	4	15	.88
A29	Write staff studies, surveys, or special reports, other than training reports	7.00	0	0	4	22	.59
C72	Evaluate budget or financial requirements	6.95	0	0	1	11	.56
K609	Boresight radar navigation system antennas	6.89	2	5	5	5	3.03
H308	Fabricate avionic system mockups	6.86	14	21	39	38	3.00

* TD MEAN = 5.00 S.D. = 1.00

** TE MEAN = 3.12 S.D. = 1.70 (High TE >= 4.82)

listed and defined in the Training Decision Logic Table found in Attachment 1, AETCR 52-22, and allow course personnel to quickly focus their attention on those tasks which are most likely to qualify for ABR course consideration.

Various lists of tasks, accompanied by TE and TD ratings, and where appropriate, ATI information, are contained in the TRAINING EXTRACT package and should be reviewed in detail by technical school personnel. (For a more detailed explanation of TE and TD ratings, see Task Factor Administration in the **SURVEY METHODOLOGY** section of this report.)

Specialty Training Standard (STS)

A comprehensive review of the 455X2 STS, dated March 1992, compared STS items to survey data based on the previously mentioned match of tasks to STS elements. STS paragraphs containing general knowledge information, mandatory entries, subject-matter-knowledge-only requirements, or basic supervisory responsibilities were not examined. Task knowledge, performance elements, and dashed/"-" items of the STS were compared against the standard set forth in AFR 8-13 (dated 1 August 1986) and AFR 8-13/ATC Supplement 1 (dated 2 March 1987), Attachment 1, paragraph A1-3c(4), whereby requiring inclusion of these tasks performed or knowledge required by 20 percent or more of the personnel in a skill level (criterion group) of that AFS.

Overall, the STS provides comprehensive coverage of the work performed by personnel in this career ladder, with survey data supporting most of the essential paragraphs or subparagraphs. Even though some elements did not have high percentages of personnel performing matched tasks, the fact that the supporting tasks were a part of an identifiable job being performed in the career ladder supports the retention of the STS element involving those tasks.

Some elements of the 455X2 STS were not supported by occupational data and do require review by training personnel and SMEs. Table 34 displays examples of these elements and survey data pertaining to tasks matched to these elements. Data on both on- and off-equipment maintenance STS paragraphs (i.e., STS paragraphs 14 and 15, respectively) that cover cockpit voice recorders, ELTs, AFSATCOM, DFs, emergency radios, IFF interrogators, GPS, radar beacon, search weather, and terrain radar reflected that STS line items pertaining to "adjust," "accomplishing minimum performance checks," "isolating malfunctions," and "repair" actions are not supported by 20 percent or more respondents. A complete listing of STS paragraphs not supported by occupational data can be found in the Training Extract. These tasks reflect low task performance figures which necessitate evaluation to justify retention in the STS.

Tasks not matched to any element of the 455X2 STS are listed at the end of the STS computer listing. These were reviewed to determine if there were any tasks concentrated around any particular functions or jobs. No particular trends were noted. Examples of technical tasks performed by 20 percent or more respondents of the STS target groups, but which were not referenced to any STS element, are displayed in Table 35. Training personnel and SMEs should review these and other eligible unreferenced tasks to determine if inclusion in the STS is justified.

TABLE 34

EXAMPLES OF 455X2 STS ELEMENTS NOT SUPPORTED BY SURVEY DATA
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS ITEMS (with selected matched tasks)		3-LEVEL COURSE PROF CODE	PERCENT MEMBERS PERFORMING TNG EMP*	1ST ENL (N=214)	DAFSC 2A153 (N=360)	DAFSC 2A173 (N=132)	TASK DIFF**
14i(2)	Isolate malfunction to cockpit voice recorder SRU or component	-					
M759	Isolate malfunctions in CDPIR or CPI battery packs		2.44	7	10	13	4.85
M760	Isolate malfunctions in CDPIR or CPI control units		2.62	7	10	13	5.04
14m(5)	Repair direction finder (DF) SRU or component	-					
J492	Repair DF amplifiers		3.71	4	6	8	5.31
J493	Repair DF antenna drives		3.74	3	6	8	5.43
14m(5)	Accomplish minimum performance checks of IFF interrogators	-					
L711	Bench check airborne interrogator alarm indicators		3.29	4	4	3	5.13
L712	Bench check airborne interrogator antenna amplifiers		3.53	3	4	3	5.27
14x(2)	Isolate malfunctions to global positioning system (GPS) SRU or component	-					
J447	Isolate malfunctions in GPS interface units		3.24	3	4	6	5.95
J451	Isolate malfunctions in installed GPS systems		4.41	7	8	8	6.05

* TE MEAN = 3.12 S.D. = 1.70 (High TE > = 4.82)
** TD MEAN = 5.00 S.D. = 1.00

TABLE 35

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE 2A1X3 GROUP MEMBERS AND NOT REFERENCED TO THE 455X2 STS

TASKS		PERCENT MEMBERS PERFORMING 1ST ENL (N=214)	DAFSC 2A153 (N=360)	DAFSC 2A173 (N=132)	TNG EMP*	TASK DIFF**
G276	Isolate malfunctions in avionic pressurization systems	20	28	33	3.62	5.19
G279	Lubricate avionic equipment	44	48	46	3.62	3.13
G280	Maintain avionic equipment, other than communication/navigation systems	20	29	35	3.12	5.23
G281	Match system components	25	28	21	3.88	4.75
G293	Remove or install components, such as resistors, capacitors, or semiconductor devices	61	64	64	6.12	4.72
H306	Bench check peculiar test equipment	36	47	46	4.41	5.64
I320	Adjust or align radio coupler controls or accessory units	27	31	23	5.38	5.45
I338	Bench check radio coupler controls or accessory units	26	28	23	5.41	5.19
I340	Bench check radio frequency indicators	30	33	23	5.35	4.50
I343	Bench check radio systems retrofit mount adapters	14	23	20	5.12	4.67
I362	Operate associated systems while checking radio systems	37	47	48	5.15	4.64
I396	Seal blade antennas	32	36	34	4.44	3.22
J410	Adjust or align marker beacon receivers	33	45	36	5.24	4.83
J462	Operate associated systems while checking radio navigation equipment	28	39	39	5.76	4.92
K640	Perform power or signal loss checks on RT cables	21	25	23	4.79	5.25

* TE MEAN = 3.12 S.D. = 1.70 (High TE >= 4.82)
** TD MEAN = 5.00 S.D. = 1.00

SECTION IV

JOB SATISFACTION ANALYSIS

An examination of the job satisfaction indicators of various groups can give career ladder managers a better understanding of some of the factors which may affect the job performance of airmen in the career ladder. Questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions were included in the survey booklet to provide indications of job satisfaction.

Table 36 presents job satisfaction data for AFSC 2A4X2 TAFMS groups, together with data for a comparative sample of Mission Equipment Maintenance career ladders surveyed in 1992. These data can give a relative measure of how the job satisfaction of AFSC 2A4X2 personnel compares with other similar Air Force specialties. Review of Table 36 reflects that responses from AFSC 2A4X2 TAFMS groups regarding job interest, use of talents, use of training, and reenlistment intentions are all quite positive (64 percent or more responding positively) and are generally higher than most of the comparative groups.

Table 37 presents job satisfaction data for AFSC 2A1X3 TAFMS groups, together with data for a comparative sample of Mission Equipment Maintenance career ladders surveyed in 1992. These data can give a relative measure of how the job satisfaction of AFSC 2A1X3 personnel compares with other similar Air Force specialties. Review of Table 37 reflects that responses from AFSC 2A1X3 TAFMS groups regarding job interest, use of talents, use of training, and reenlistment intentions are all quite positive (62 percent or more responding positively) and are generally higher than most of the comparative groups.

Table 38 presents job satisfaction responses from personnel in the specialty jobs discussed in the **SPECIALTY JOBS** section of this report. An examination of these data can show how overall job satisfaction may be influenced by the type of job performed. Review of the job satisfaction data for personnel in the Flightline Communication and Navigation, Shop Communication and Navigation, and Staff clusters identified in the specialty job analysis (see Table 38) reveals positive responses overall in all five of the job satisfaction indicators.

Isolated job groups within the Flightline Communication and Navigation, Shop Communication and Navigation, and Staff clusters (see Table 38) revealed low ratings for some of the five job satisfaction indicators. In the Flightline Communication and Navigation Systems cluster, personnel in the Crew Chief job responded less than positively to four of the five job satisfaction indicators. The only job satisfaction indicator that received a positive rating was reenlistment intention. Personnel in the B-52 and KC-135 Flightline Maintenance job responded

TABLE 36

COMPARISON OF JOB SATISFACTION INDICATORS FOR 2A4X2
TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MONTHS TAFMS	
	2A4X2 (N=376)	COMP SAMPLE (N=3,272)	2A4X2 (N=201)	COMP SAMPLE (N=463)	2A4X2 (N=442)	COMP SAMPLE (N=537)
EXPRESSED JOB INTEREST:						
INTERESTING	83	78	73	68	70	69
SO-SO	12	14	14	17	17	17
DULL	5	8	13	13	13	14
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL TO PERFECTLY	83	77	75	76	71	78
LITTLE OR NOT AT ALL	17	17	25	24	29	22
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL TO PERFECTLY	77	85	68	73	64	73
LITTLE OR NOT AT ALL	23	14	32	27	36	27
REENLISTMENT INTENTIONS:						
YES OR PROBABLY YES	64	58	66	80	75	62
NO OR PROBABLY NO	36	41	34	10	13	6
WILL RETIRE	0	*	0	10	12	31

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

Comparative sample of MISSION EQUIPMENT MAINTENANCE career ladders surveyed in 1992. (Includes AFSCs 305X4, 404X0, 411X0A, 452X5, 454X5, 454X6, 457X0A/B/D/F, 457X2A/D/E, and 463X0)

TABLE 37

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 2A1X3 TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE (PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MONTHS TAFMS	
	2A1X3 (N=214)	COMP SAMPLE (N=3,272)	2A1X3 (N=143)	COMP SAMPLE (N=463)	2A1X3 (N=285)	COMP SAMPLE (N=537)
EXPRESSED JOB INTEREST:						
INTERESTING	81	78	78	68	81	69
SO-SO	12	14	15	17	13	17
DULL	7	8	7	13	6	14
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL TO PERFECTLY	86	77	87	78	87	78
LITTLE OR NOT AT ALL	14	17	13	24	13	22
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL TO PERFECTLY	85	85	87	73	84	73
LITTLE OR NOT AT ALL	14	14	13	27	16	27
REENLISTMENT INTENTIONS:						
YES OR PROBABLY YES	62	58	73	80	75	62
NO OR PROBABLY NO	38	41	27	10	11	6
WILL RETIRE	0	*	0	10	42	31

* Less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

Comparative sample of MISSION EQUIPMENT MAINTENANCE career ladders surveyed in 1992. (Includes AFSCs 305X4, 404X0, 411X0A, 452X5, 454X5, 454X6, 457X0A/B/D/F, 457X2A/D/E, and 463X0)

TABLE 38

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF SPECIALTY CLUSTERS AND JOBS
(PERCENT MEMBERS RESPONDING)

	AFSC 2A4X2 (FORMERLY AFSC 453X2)							
	FLTLN COMM/NAV SYSTEMS CLUSTER (N=996)	FLTLN MAINT (N=793)	CREW CHIEF CUT (N=29)	KC-10 FLTLN MAINT (N=6)	C-130 FLTLN MAINT (N=13)	C-141 FLTLN MAINT (N=8)	A-10/U-2/ TR-1 FLTLN MAINT (N=11)	B-52/C-130/ HH-1 FLTLN MAINT (N=8)
EXPRESSED JOB INTEREST:								
INTERESTING	75	77	(48)	83	62	75	82	88
SO-SO	15	14	10	17	38	25	18	13
DULL	10	9	41	0	0	0	0	0
PERCEIVED USE OF TALENTS:								
FAIRLY WELL TO PERFECTLY	77	78	(48)	100	62	88	73	100
LITTLE OR NOT AT ALL	23	22	52	0	38	13	27	0
PERCEIVED USE OF TRAINING:								
FAIRLY WELL TO PERFECTLY	69	71	(35)	83	(46)	76	64	88
LITTLE TO NOT AT ALL	31	29	65	17	54	25	36	13
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:								
SATISFIED	71	72	(41)	67	62	88	64	100
NEUTRAL	12	12	24	17	15	0	27	0
DISSATISFIED	16	16	34	17	23	13	9	0
REENLISTMENT INTENTIONS:								
PLAN TO REENLIST	70	71	66	67	(31)	(25)	91	100
PLAN NOT TO REENLIST	26	24	34	33	62	75	9	0
PLAN TO RETIRE	5	5	0	0	0	0	0	0

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 38 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF SPECIALTY CLUSTERS AND JOBS
(PERCENT MEMBERS RESPONDING)

	AFSC 2A4X2 (FORMERLY AFSC 453X2)						
	KC-135 FLTLN MAINT (N=18)	A-10/F-4 FLTLN MAINT (N=5)	C-130/ RHEIN MAIN FLTLN MAINT (N=7)	U-2/TR-1/ E-3 FLTLN MAINT (N=6)	B-52/ KC-135 FLTLN MAINT (N=5)	C-130/ C-5/E-3/ MH-53J FLTLN MAINT (N=6)	1ST-LN SUPVSR (N=28)
EXPRESSED JOB INTEREST:							
INTERESTING	83	60	84	83	20	83	57
SO-SO	17	20	14	14	40	17	32
DULL	0	20	0	0	40	0	11
PERCEIVED USE OF TALENTS:							
FAIRLY WELL TO PERFECTLY	83	60	86	67	40	100	64
LITTLE OR NOT AT ALL	11	40	14	33	60	0	36
PERCEIVED USE OF TRAINING:							
FAIRLY WELL TO PERFECTLY	84	40	86	100	20	84	46
LITTLE TO NOT AT ALL	17	60	14	0	80	17	54
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:							
SATISFIED	89	100	71	83	60	83	50
NEUTRAL	6	0	14	17	0	17	14
DISSATISFIED	6	0	14	0	40	0	36
REENLISTMENT INTENTIONS:							
PLAN TO REENLIST	61	60	86	50	20	67	71
PLAN NOT TO REENLIST	39	40	14	17	80	33	18
PLAN TO RETIRE	0	0	0	17	0	0	11

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 38 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF SPECIALTY CLUSTERS AND JOBS
(PERCENT MEMBERS RESPONDING)

	AFSC 2A1X3 (FORMERLY AFSC 455X2)						
	SHOP COMM/NAV SYSTEMS CLUSTER (N=468)	SHOP MAINT (N=362)	SHOP 1ST-LINE SUPVSR (N=20)	DEPOT/ILMS 1ST-LINE SUPVSR (N=18)	SPC OPS COMPONENT REPAIR (N=18)	SKE MAINT (N=14)	SEARCH WEATHER RADAR MAINT (N=13)
EXPRESSED JOB INTEREST:							
INTERESTING	81	82	90	(44)	71	93	69
SO-SO	12	11	5	39	21	7	23
DULL	7	7	5	17	7	0	8
PERCEIVED USE OF TALENTS:							
FAIRLY WELL TO PERFECTLY	87	86	95	84	100	100	70
LITTLE OR NOT AT ALL	13	14	5	17	0	0	31
PERCEIVED USE OF TRAINING:							
FAIRLY WELL TO PERFECTLY	90	91	80	67	71	100	84
LITTLE TO NOT AT ALL	10	9	20	33	29	0	15
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:							
SATISFIED	80	80	90	50	84	79	62
NEUTRAL	10	10	0	11	14	21	15
DISSATISFIED	10	10	10	39	0	0	23
REENLISTMENT INTENTIONS:							
PLAN TO REENLIST	70	70	75	78	79	86	(46)
PLAN NOT TO REENLIST	23	25	0	22	14	14	54
PLAN TO RETIRE	7	6	25	0	7	0	0

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 38 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF SPECIALTY CLUSTERS AND JOBS
(PERCENT MEMBERS RESPONDING)

		STAFF PERSONNEL						
	STAFF PERSONNEL CLUSTER (N=348)	EXPEDITER (N=9)	TOOL CRIB MONITOR (N=9)	DIFM MONITOR (N=12)	TMDE MONITOR (N=5)	QUALITY ASSURANCE INSPECTOR (N=21)	FLTLN SUPVSR (N=32)	SHOP SUPVSR (N=83)
EXPRESSED JOB INTEREST:								
INTERESTING	77	78	56	42	60	81	72	76
SO-SO	14	22	0	33	40	14	19	16
DULL	9	0	44	25	0	5	9	8
PERCEIVED USE OF TALENTS:								
FAIRLY WELL TO PERFECTLY	82	67	55	67	60	86	78	84
LITTLE OR NOT AT ALL	18	33	44	33	40	14	22	16
PERCEIVED USE OF TRAINING:								
FAIRLY WELL TO PERFECTLY	64	44	22	33	60	86	69	69
LITTLE TO NOT AT ALL	36	56	78	67	40	14	31	31
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:								
SATISFIED	73	44	44	58	60	76	66	78
NEUTRAL	10	22	11	8	20	5	16	8
DISSATISFIED	17	33	44	33	20	19	19	16
REENLISTMENT INTENTIONS:								
PLAN TO REENLIST	64	44	44	67	0	86	53	64
PLAN NOT TO REENLIST	9	11	44	17	0	5	9	4
PLAN TO RETIRE	26	44	11	17	100	10	38	31

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 38 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF SPECIALTY CLUSTERS AND JOBS
(PERCENT MEMBERS RESPONDING)

	STAFF PERSONNEL						
	PROGRAM MGMT (N=8)	SPECIAL COMM SUPVSR (N=9)	MATERIAL DEFICIENCY (N=8)	TECHNICAL ORDER MAINT (N=9)	PGRM & MOBILITY MGMT (N=13)	RESIDENT COURSE INSTRUCTOR (N=12)	FTD INSTRUCTOR (N=33)
EXPRESSED JOB INTEREST:							
INTERESTING	100	100	100	40	92	84	91
SO-SO	0	0	0	40	8	11	6
DULL	0	0	0	20	0	5	3
PERCEIVED USE OF TALENTS:							
FAIRLY WELL TO PERFECTLY	88	100	100	60	100	92	97
LITTLE OR NOT AT ALL	13	0	0	40	0	8	3
PERCEIVED USE OF TRAINING:							
FAIRLY WELL TO PERFECTLY	38	89	63	40	61	89	90
LITTLE TO NOT AT ALL	63	11	38	60	38	11	9
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:							
SATISFIED	88	100	75	20	77	81	91
NEUTRAL	0	0	13	40	0	3	6
DISSATISFIED	13	0	13	40	23	16	3
REENLISTMENT INTENTIONS:							
PLAN TO REENLIST	63	89	50	60	54	78	73
PLAN NOT TO REENLIST	13	0	25	0	0	8	9
PLAN TO RETIRE	25	11	25	40	38	14	18

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 38 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF SPECIALTY CLUSTERS AND JOBS (PERCENT MEMBERS RESPONDING)

	INDEPENDENT JOBS			
	BENCH CHECK MONITOR (N=8)	AIRLIFT CONTROL ELEMENT (N=7)	MAINTENANCE ADMIN (N=26)	RESOURCE MGMT (N=7)
EXPRESSED JOB INTEREST:				
INTERESTING	88	43	62	86
SO-SO	13	43	27	14
DULL	0	14	12	0
PERCEIVED USE OF TALENTS:				
FAIRLY WELL TO PERFECTLY	100	58	62	100
LITTLE OR NOT AT ALL	0	43	38	0
PERCEIVED USE OF TRAINING:				
FAIRLY WELL TO PERFECTLY	100	43	46	29
LITTLE TO NOT AT ALL	0	57	54	71
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:				
SATISFIED	88	43	62	86
NEUTRAL	0	0	19	14
DISSATISFIED	13	57	19	0
REENLISTMENT INTENTIONS:				
PLAN TO REENLIST	63	57	62	29
PLAN NOT TO REENLIST	38	43	31	14
PLAN TO RETIRE	0	0	8	57

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

less than positively to four of the five job satisfaction indicators. The only job satisfaction indicator that received a positive rating was sense of accomplishment gained from work. Two jobs, A-10 and F-4 Flightline Maintenance job and First-Line Supervisor job, responded less than positively to perceived use of training. One job, C-130 Flightline Maintenance job, responded less than positively to perceived use of training and to reenlistment intentions. The C-141 Flightline Maintenance job responded that less than 50 percent of them would reenlist. In the Shop Communication and Navigation Systems cluster, personnel in the Depot/ILMS First-Line Supervisor job responded less than positively to finding their jobs interesting. Personnel in the Search Weather Maintenance job responded that less than 50 percent of them would reenlist. In the Staff Personnel cluster, members in the Expediter and Tool Crib Monitor jobs responded that the work they performed did not utilize their training, that they were less than satisfied (fewer than 50 percent responding positively) with the sense of accomplishment gained from work, and that less than 50 percent of them would reenlist. In the DIFM Monitor job, personnel responded less than positively (fewer than 50 percent responding positively) in expressed job interest and in perceived use of training. Airmen in the Program Management job perceived their jobs as not using their talents. All personnel in the TMDE Monitor job reported that they plan to retire. In the Technical Order Maintenance job, less than positive responses were indicated in expressed job interest, perceived use of training, and sense of accomplishment gained from work.

Of the four IJs identified in the specialty job analysis (see Table 38), only personnel in Bench Check Monitor job revealed positive responses in all five of the job satisfaction indicators. Airlift Control Element job personnel indicated less than positive ratings (fewer than 50 percent responding positively) for expressed job interest, perceived utilization of training, and sense of accomplishment gained from work. Maintenance Administration job personnel expressed a less than positive rating for perceived use of training. Resource Management job personnel revealed a less than positive rating (fewer than 50 percent responding positively) in perceived use of training and in reenlistment intentions.

When there are serious problems in a career ladder, survey respondents are usually quite free with write-in comments to complain about perceived problems in the field. Six percent of the survey sample used the write-in feature to convey some type of information, yet only 1 percent of the comments received could be characterized as complaints. While no particular trends were noted among the few comments received, a few were noted in the complaint-type write-ins. A good number of the write-ins received pertained to respondents providing their new MAJCOM designations. Few write-ins commented on respondents "working out of their career field" either by being detailed to other areas or just performing tasks not associated with avionics maintained. Other write-in comments addressed crew chief duties; there were quite a few disgruntled mumblings from respondents reporting too much time is spent performing CUT tasks, with too little time spent utilizing technical skills learned. A job satisfaction comparison to the previous OSR (i.e., AFSC 455X2, former AFSCs 328X0 and 328X1) was not done, because the data came from two completely different populations and clear comparisons could not be made.

IMPLICATIONS

This survey was requested by training personnel to review the structure of the career ladder since Rivet Workforce changes were implemented and to obtain current task and equipment data. Although not in the initial request, but just as important, this survey took on the additional purposes of addressing the restructuring of AFSC 2A4X2 (formerly AFSC 453X2) and the creation of the new AFSC 2A1X3 (formerly AFSC 455X2).

Survey results described in the **SPECIALTY JOBS** section clearly show two distinctive jobs. Even though there are situations where 2A4X2 and 2A1X3 personnel perform similar tasks, by and large, the differences between the flightline job group and the shop job group are quite evident. In most instances, on-equipment maintenance personnel are performing significantly fewer tasks than their counterpart on- and off-equipment maintenance personnel. The airmen performing flightline communication and navigation maintenance are basically locating a faulty unit and replacing it with a new one. Whereas, the airmen performing shop communication and navigation maintenance perform the more arduous job of finding the exact malfunction and then repairing it. Survey data support the new classification structure of the AFSC 2A4X2 and the AFSC 2A1X3.

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APPENDIX A

SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS

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TABLE I

FLIGHTLINE COMMUNICATION AND NAVIGATION SYSTEMS CLUSTER
(ST0112)

GROUP SIZE: 996
PERCENT OF SAMPLE: 51%
PREDOMINANT GRADE: E-4/5

AVERAGE TICF: 80 MONTHS
AVERAGE TAFMS: 89 MONTHS

Average number of tasks performed: 145

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
I364	Operationally check radio systems	93
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	92
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	92
G298	Safety wire avionic system equipment	91
G269	Inspect communications or navigations systems	90
G299	Set up flightline maintenance stands	89
N794	Operationally check interphone systems	88
G292	Remove or install common hardware, such as switches, knobs, or faceplates	88
Q873	Perform tow team member duties	87
N796	Remove or install interphone system LRUs	87
G302	Trace signals through circuits using schematics or wiring diagrams	86
G290	Remove or install aircraft access plates or panels	86
J454	Isolate malfunctions in installed TACAN systems	86
I377	Remove or install radio system LRUs, other than those requiring special handling	85
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	85
G291	Remove or install avionic system wiring, coaxial cables, or triaxial cables	84
G300	Splice avionic system wiring	84
G282	Open or close radomes	83
Q874	Position aircraft chocks	81
Q875	Position nonpowered or powered AGE to aircraft	81
N791	Isolate malfunctions in installed interphone systems	81
J483	Remove or install radio navigation system LRUs, other than those requiring special handling	81

TABLE IA

FLIGHTLINE MAINTENANCE JOB
(ST0392)

GROUP SIZE: 793
PERCENT OF SAMPLE: 40%
PREDOMINANT GRADE: E-4/5

AVERAGE TICF: 82 MONTHS
AVERAGE TAFMS: 91 MONTHS

Average number of tasks performed: 154

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	96
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	95
I364	Operationally check radio systems	95
G269	Inspect communications or navigations systems	94
G298	Safety wire avionic system equipment	94
G292	Remove or install common hardware, such as switches, knobs ,or faceplates	93
G299	Set up flightline maintenance stands	93
N794	Operationally check interphone systems	92
Q873	Perform tow team member duties	92
N796	Remove or install interphone system LRUs	92
G290	Remove or install aircraft access plates or panels	92
J474	Operationally check TACAN systems using ground stations	91
G300	Splice avionic system wiring	91
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	90
J454	Isolate malfunctions in installed TACAN systems	90
G302	Trace signals through circuits using schematics or wiring diagrams	89
I377	Remove or install radio system LRUs, other than those requiring special handling	89
G282	Open or close radomes	88
Q875	Position nonpowered or powered AGE to aircraft	87
J483	Remove or install radio navigation system LRUs, other than those requiring special handling	87
Q874	Position aircraft chocks	87
N791	Isolate malfunctions in installed interphone systems	86
J477	Operationally check VOR using ground stations	86
J455	Isolate malfunctions in installed VOR systems	85

TABLE IB

CREW CHIEF CROSS-UTILIZATION TRAINING (CUT) JOB
(ST0215)

GROUP SIZE: 29
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 67 MONTHS
AVERAGE TAFMS: 71 MONTHS

Average number of tasks performed: 69

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
Q874	Position aircraft chocks	97
Q873	Perform tow team member duties	97
Q877	Refuel or defuel aircraft	93
Q856	Ground aircraft	93
Q861	Launch or recover aircraft	90
Q862	Operate aircraft power units, including quick-start air source	86
Q875	Position nonpowered or powered AGE to aircraft	86
Q870	Perform or assist in preflight inspections	86
Q853	Change light bulbs	86
Q872	Perform or assist in thru flight inspections	83
Q893	Service aircraft with hydraulic fluid, air, or oil	83
Q892	Service aircraft tires	83
Q858	Inspect aircraft shock struts	76
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	76
Q869	Perform or assist in postflight inspections	73
I364	Operationally check radio systems	72
Q857	Inspect aircraft hydraulic systems	69
I377	Remove or install radio system LRUs, other than those requiring special handling	69
Q864	Perform fire guard duties	66
Q895	Tow nonpowered AGE	62
Q866	Perform or assist in engine run tests	62
G299	Set up flightline maintenance stands	59
E203	Make entries on AFTO Forms 781 series (AFORM Aircrew/Mission Flight Data Document)	55
Q860	Jack and level aircraft	55
G290	Remove or install aircraft access plates or panels	55

TABLE IC

KC-10 FLIGHTLINE MAINTENANCE JOB
(ST0178)

GROUP SIZE: 6
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-3/4

AVERAGE TICF: 33 MONTHS
AVERAGE TAFMS: 37 MONTHS

Average number of tasks performed: 82

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
J463	Operationally check ADF systems	100
I354	Isolate malfunctions in installed secure voice systems	100
I365	Operationally check UHF ADF systems	100
I355	Isolate malfunctions in installed UHF ADF systems	100
I353	Isolate malfunctions in installed radio systems, other than AFSATCOM	100
I364	Operationally check radio systems	83
J454	Isolate malfunctions in installed TACAN systems	83
I362	Operate associated systems while checking radio systems	83
J455	Isolate malfunctions in installed VOR systems	83
K628	Operationally check color radar systems	83
K617	Isolate malfunctions in installed color radar systems	83
K621	Isolate malfunctions in installed radio or radar altimeter systems	83
N791	Isolate malfunctions in installed interphone systems	83
J448	Isolate malfunctions in installed ADF systems	83
N796	Remove or install interphone system LRUs	83
J453	Isolate malfunctions in installed marker beacon receivers	83
J485	Remove or install TACAN antennas	83
G282	Open or close radomes	83
F237	Access core automated maintenance system (CAMS) menus and data screens	67
I368	Perform radio frequency load built-in test of AFSATCOM systems	67
J477	Operationally check VOR using ground stations	67
I366	Operationally check VHF FM radio homing systems	67
G296	Remove or install static dischargers	67
J476	Operationally check VOR using FTE	67

TABLE ID

C-130 FLIGHTLINE MAINTENANCE JOB
(ST0273)

GROUP SIZE: 13
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 29 MONTHS
AVERAGE TAFMS: 33 MONTHS

Average number of tasks performed: 77

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
Q873	Perform tow team member duties	100
N794	Operationally check interphone systems	100
G298	Safety wire avionic system equipment	92
G282	Open or close radomes	92
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	92
J483	Remove or install radio navigation system LRUs, other than those requiring special handling	92
N795	Operationally check PA systems	92
Q877	Refuel or defuel aircraft	85
I377	Remove or install radio system LRUs, other than those requiring special handling	85
G302	Trace signals through circuits using schematics or wiring diagrams	85
J455	Isolate malfunctions in installed VOR systems	85
J454	Isolate malfunctions in installed TACAN systems	85
O825	Remove or install SKE system LRUs, other than those requiring special handling	85
Q862	Operate aircraft power units, including quick-start air source	77
Q874	Position aircraft chocks	77
I365	Operationally check UHF ADF systems	77
J448	Isolate malfunctions in installed ADF systems	77
G300	Splice avionic system wiring	77
Q875	Position nonpowered or powered AGE to aircraft	69
Q861	Launch or recover aircraft	69
G269	Inspect communications or navigations systems	69
G283	Operate powered aerospace ground equipment (AGE) , such as power units, heaters, or light carts	69
I364	Operationally check radio systems	69
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	69
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	69

TABLE IE

C-141 FLIGHTLINE MAINTENANCE JOB
(ST0345)

GROUP SIZE: 8
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 33 MONTHS
AVERAGE TAFMS: 34 MONTHS

Average number of tasks performed: 72

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
I364	Operationally check radio systems	100
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	100
G299	Set up flightline maintenance stands	100
J463	Operationally check ADF systems	100
G302	Trace signals through circuits using schematics or wiring diagrams	100
I362	Operate associated systems while checking radio systems	88
N796	Remove or install interphone system LRUs	88
I365	Operationally check UHF ADF systems	88
N794	Operationally check interphone systems	88
I377	Remove or install radio system LRUs, other than those requiring special handling	88
G298	Safety wire avionic system equipment	88
Q856	Ground aircraft	88
K634	Operationally check radio or radar altimeter systems using BITE	88
J472	Operationally check TACAN systems using BITE	88
G290	Remove or install aircraft access plates or panels	88
G291	Remove or install avionic system wiring, coaxial cables, or triaxial cables	88
I373	Remove or install radio couplers	88
G269	Inspect communications or navigations systems	75
I366	Operationally check VHF FM radio homing systems	75
E203	Make entries on AFTO Forms 781 series (AFORM Aircrew/Mission Flight Data Document)	75
G292	Remove or install common hardware, such as switches, knobs, or faceplates	75
N798	Remove or install PA LRUs	75
G282	Open or close radomes	75

TABLE IF

A-10 AND U-2/TR-1 FLIGHTLINE MAINTENANCE JOB
(ST0398)

GROUP SIZE: 11
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 41 MONTHS
AVERAGE TAFMS: 47 MONTHS

Average number of tasks performed: 66

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G298	Safety wire avionic system equipment	100
G270	Inspect egress system safety pin installation	100
J472	Operationally check TACAN systems using BITE	100
J474	Operationally check TACAN systems using ground stations	100
G269	Inspect communications or navigations systems	91
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	91
L740	Operationally check IFF using FTE	91
G284	Perform corrosion control on avionic equipment	91
L739	Operationally check IFF using BITE	91
I369	Preset frequencies in radio control units	91
J483	Remove or install radio navigation system LRUs, other than those requiring special handling	91
G292	Remove or install common hardware, such as switches, knobs, or faceplates	91
I364	Operationally check radio systems	82
I377	Remove or install radio system LRUs, other than those requiring special handling	82
I365	Operationally check UHF ADF systems	82
G290	Remove or install aircraft access plates or panels	82
N794	Operationally check interphone systems	82
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	82
G302	Trace signals through circuits using schematics or wiring diagrams	82
J454	Isolate malfunctions in installed TACAN systems	82
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	73
I355	Isolate malfunctions in installed UHF ADF systems	73
J473	Operationally check TACAN systems using FTE	73
I366	Operationally check VHF FM radio homing systems	73
J463	Operationally check ADF systems	73
G266	Fabricate coaxial or triaxial cables	73

TABLE IG

B-51, C-130, AND HH-1 FLIGHTLINE MAINTENANCE JOB
(ST0320)

GROUP SIZE: 8
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 47 MONTHS
AVERAGE TAFMS: 47 MONTHS

Average number of tasks performed: 86

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	100
I364	Operationally check radio systems	100
G302	Trace signals through circuits using schematics or wiring diagrams	100
G298	Safety wire avionic system equipment	100
I377	Remove or install radio system LRUs, other than those requiring special handling	100
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	100
G282	Open or close radomes	100
I365	Operationally check UHF ADF systems	100
J474	Operationally check TACAN systems using ground stations	100
I369	Preset frequencies in radio control units	100
J476	Operationally check VOR using FTE	100
J466	Operationally check glideslope receivers using FTE	100
I360	Load Have Quick	100
J473	Operationally check TACAN systems using FTE	100
G294	Remove or install equipment shock mounts	100
G292	Remove or install common hardware, such as switches, knobs, or faceplates	88
I366	Operationally check VHF FM radio homing systems	88
K629	Operationally check doppler navigation systems	88
J471	Operationally check marker beacon receivers using FTE	88
J469	Operationally check localizer receivers using FTE	88
G266	Fabricate coaxial or triaxial cables	88
E168	Locate maintenance information in TOs	75
E169	Locate part or stock numbers in technical publications	75
G299	Set up flightline maintenance stands	75
J483	Remove or install radio navigation system LRUs, other than those requiring special handling	75

TABLE IH

KC-135 FLIGHTLINE MAINTENANCE JOB
(ST0321)

GROUP SIZE: 18
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 27 MONTHS
AVERAGE TAFMS: 29 MONTHS

Average number of tasks performed: 77

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
G269	Inspect communications or navigations systems	100
G282	Open or close radomes	100
G272	Inspect or change desiccant crystals	100
G298	Safety wire avionic system equipment	94
I364	Operationally check radio systems	94
J455	Isolate malfunctions in installed VOR systems	94
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	89
G290	Remove or install aircraft access plates or panels	89
G273	Inspect radomes for delamination or cracks	89
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	89
J454	Isolate malfunctions in installed TACAN systems	89
G302	Trace signals through circuits using schematics or wiring diagrams	83
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	83
I365	Operationally check UHF ADF systems	78
G271	Inspect equipment shock mounts	78
G295	Remove or install radomes	78
I360	Load Have Quick	78
G294	Remove or install equipment shock mounts	78
N791	Isolate malfunctions in installed interphone systems	72
G299	Set up flightline maintenance stands	72
F244	Clear or closeout completed aircraft maintenance discrepancies in CAMS	72
G284	Perform corrosion control on avionic equipment	72
G300	Splice avionic system wiring	72
G265	Clean facilities	72

TABLE II

A-10 AND F-4 FLIGHTLINE MAINTENANCE JOB
(ST0402)

GROUP SIZE: 5
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 59 MONTHS
AVERAGE TAFMS: 64 MONTHS

Average number of tasks performed: 95

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
J469	Operationally check localizer receivers using FTE	100
J471	Operationally check marker beacon receivers using FTE	100
J470	Operationally check marker beacon receivers using BITE	100
J474	Operationally check TACAN systems using ground stations	100
L741	Remove or install avionic identification system LRUs	100
L737	Operationally check airborne interrogator systems using BITE	100
L735	Operate associated systems while checking airborne identification systems	100
J472	Operationally check TACAN systems using BITE	100
L733	Isolate malfunctions to IFF RT SRUs	100
L738	Operationally check airborne interrogator systems using FTE	100
J476	Operationally check VOR using FTE	100
I355	Isolate malfunctions in installed UHF ADF systems	100
L736	Operate associated systems while checking IFF systems	100
J475	Operationally check VOR using BITE	100
L732	Isolate malfunctions in installed IFF systems	100
J454	Isolate malfunctions in installed TACAN systems	100
J479	Remove or install glideslope receiver antennas	100
L730	Isolate malfunctions in IFF self-test sets	100
J481	Remove or install marker beacon receiver antennas	100
J480	Remove or install localizer receiver antennas	100
I365	Operationally check UHF ADF systems	80
I366	Operationally check VHF FM radio homing systems	80
J483	Remove or install radio navigation system LRUs, other than those requiring special handling	80
J466	Operationally check glideslope receivers using FTE	80
J465	Operationally check glideslope receivers using built-in test equipment (BITE)	80
J468	Operationally check localizer receivers using BITE	80

TABLE IJ

C-130 (RHEIN MAIN) FLIGHTLINE MAINTENANCE JOB
(ST0386)

GROUP SIZE: 7
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 79 MONTHS
AVERAGE TAFMS: 100 MONTHS

Average number of tasks performed: 262

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
J472	Operationally check TACAN systems using BITE	100
J454	Isolate malfunctions in installed TACAN systems	100
J448	Isolate malfunctions in installed ADF systems	100
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	100
N794	Operationally check interphone systems	100
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	100
I377	Remove or install radio system LRUs, other than those requiring special handling	100
J455	Isolate malfunctions in installed VOR systems	100
G302	Trace signals through circuits using schematics or wiring diagrams	100
J476	Operationally check VOR using FTE	100
G297	Safety bond or ground avionic equipment	100
H313	Remove or install mockup SRUs	100
H312	Remove or install mockup LRUs	100
H305	Bench check mockup LRUs	100
G291	Remove or install avionic system wiring, coaxial cables, or triaxial cables	100
K598	Bench check terrain following/terrain avoidance control boxes, other than for FLRs	100
K603	Bench check terrain following/terrain avoidance power supply programmers	100
G264	Clean avionic equipment	100
K600	Bench check terrain following/terrain avoidance fault locaters	100
K597	Bench check terrain following/terrain avoidance computers, other than for FLRs	100
G287	Perform pressurization checks of avionic components	100
G269	Inspect communications or navigations systems	100
H303	Adjust or align mockup LRUs	100
H304	Adjust or align mockup shop replaceable units (SRUs)	100

TABLE IK

U-2/TR-1 AND E-3 FLIGHTLINE MAINTENANCE JOB
(ST0232)

GROUP SIZE: 6
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-5/6

AVERAGE TICF: 151 MONTHS
AVERAGE TAFMS: 161 MONTHS

Average number of tasks performed: 118

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
E203	Make entries on AFTO Forms 781 series (AFORM Aircrew/Mission Flight Data Document)	100
B32	Counsel subordinates on personal or military-related problems	100
I362	Operate associated systems while checking radio systems	100
G269	Inspect communications or navigations systems	100
G299	Set up flightline maintenance stands	100
G298	Safety wire avionic system equipment	100
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	100
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	100
G302	Trace signals through circuits using schematics or wiring diagrams	100
I361	Load or zeroize secure voice system codes	100
E168	Locate maintenance information in TOs	83
I364	Operationally check radio systems	83
G290	Remove or install aircraft access plates or panels	83
E201	Make entries on AFTO Forms 349 (Maintenance Data Collection Record)	83
D117	Demonstrate operation of equipment	83
G283	Operate powered aerospace ground equipment (AGE) , such as power units, heaters, or light carts	83
E169	Locate part or stock numbers in technical publications	83
D112	Conduct OJT	83
B59	Supervise Communication/Navigation Systems Specialists (AFSC 45552)	83
E170	Locate stock numbers on microfiche	83
A10	Develop work methods or procedures	83
G267	Fabricate multiple wire cables	83
N794	Operationally check interphone systems	83
F250	Open or close CAMS	83
I377	Remove or install radio system LRUs, other than those requiring special handling	83

TABLE IL

B-52 AND KC-135 FLIGHTLINE MAINTENANCE JOB
(ST0370)

GROUP SIZE: 5
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 31 MONTHS
AVERAGE TAFMS: 31 MONTHS

Average number of tasks performed: 103

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
Q873	Perform tow team member duties	100
Q864	Perform fire guard duties	100
Q875	Position nonpowered or powered AGE to aircraft	100
N791	Isolate malfunctions in installed interphone systems	100
N796	Remove or install interphone system LRUs	100
G269	Inspect communications or navigations systems	100
J477	Operationally check VOR using ground stations	100
K629	Operationally check doppler navigation systems	100
J474	Operationally check TACAN systems using ground stations	100
I362	Operate associated systems while checking radio systems	100
I354	Isolate malfunctions in installed secure voice systems	100
J454	Isolate malfunctions in installed TACAN systems	100
I360	Load Have Quick	100
J451	Isolate malfunctions in installed GPS systems	100
N794	Operationally check interphone systems	80
Q874	Position aircraft chocks	80
N793	Isolate malfunctions in interphone cords	80
G298	Safety wire avionic system equipment	80
G271	Inspect equipment shock mounts	80
J462	Operate associated systems while checking radio navigation equipment	80
I364	Operationally check radio systems	80
L741	Remove or install avionic identification system LRUs	80
K644	Remove or install radar navigation system waveguide assemblies	80
I368	Perform radio frequency load built-in test of AFSATCOM systems	80
I353	Isolate malfunctions in installed radio systems, other than AFSATCOM	80
G291	Remove or install avionic system wiring, coaxial cables, or triaxial cables	80

TABLE IM

C-130, C-5, E-3, AND MH-53J FLIGHTLINE MAINTENANCE JOB
(ST0581)

GROUP SIZE: 6
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 31 MONTHS
AVERAGE TAFMS: 42 MONTHS

Average number of tasks performed: 189

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
K627	Operate associated systems while checking radar navigation systems	100
G282	Open or close radomes	100
I365	Operationally check UHF ADF systems	100
I364	Operationally check radio systems	100
I366	Operationally check VHF FM radio homing systems	100
L740	Operationally check IFF using FTE	100
I355	Isolate malfunctions in installed UHF ADF systems	100
I354	Isolate malfunctions in installed secure voice systems	100
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	100
I353	Isolate malfunctions in installed radio systems, other than AFSATCOM	100
G283	Operate powered aerospace ground equipment (AGE) , such as power units, heaters, or light carts	100
I358	Isolate malfunctions to radio auxiliary receivers	100
G269	Inspect communications or navigations systems	100
G301	Test continuity of avionic wiring, coaxial cables, or triaxial cables	100
L736	Operate associated systems while checking IFF systems	100
G292	Remove or install common hardware, such as switches, knobs, or faceplates	100
G299	Set up flightline maintenance stands	100
J474	Operationally check TACAN systems using ground stations	100
J477	Operationally check VOR using ground stations	100
G300	Splice avionic system wiring	100
G290	Remove or install aircraft access plates or panels	100
G297	Safety bond or ground avionic equipment	100
J471	Operationally check marker beacon receivers using FTE	100
J469	Operationally check localizer receivers using FTE	100
J476	Operationally check VOR using FTE	100

TABLE IN

FIRST-LINE SUPERVISOR JOB
(ST0226)

GROUP SIZE: 28
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-6

AVERAGE TICF: 156 MONTHS
AVERAGE TAFMS: 183 MONTHS

Average number of tasks performed: 161

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
B61	Supervise military personnel with AFSCs other than 455X2	96
A5	Determine work priorities	93
C91	Inspect completed jobs	93
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	93
B33	Direct flightline maintenance activities	89
B60	Supervise Communication/Navigation Systems Technicians (AFSC 45572)	89
B59	Supervise Communication/Navigation Systems Specialists (AFSC 45552)	89
Q862	Operate aircraft power units, including quick-start air source	89
B32	Counsel subordinates on personal or military-related problems	89
E168	Locate maintenance information in TOs	89
C107	Write EPRs	89
E203	Make entries on AFTO Forms 781 series (AFORM Aircrew/Mission Flight Data Document)	86
C66	Conduct performance feedback (PFW) sessions	86
G299	Set up flightline maintenance stands	82
Q863	Perform expediter duties	82
A3	Coordinate work with other sections	82
Q875	Position nonpowered or powered AGE to aircraft	82
Q873	Perform tow team member duties	82
C83	Evaluate subordinates' compliance with work standards	82
C82	Evaluate subordinates' compliance with performance standards	82
Q874	Position aircraft chocks	82
G269	Inspect communications or navigations systems	82
G277	Isolate malfunctions in avionic systems wiring or coaxial cables	82

TABLE II

SHOP COMMUNICATION AND NAVIGATION SYSTEMS CLUSTER
(ST0071)

GROUP SIZE: 468
PERCENT OF SAMPLE: 24%
PREDOMINANT GRADE: E-4/5

AVERAGE TICF: 85 MONTHS
AVERAGE TAFMS: 94 MONTHS

Average number of tasks performed: 200

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
H303	Adjust or align mockup LRUs	95
H305	Bench check mockup LRUs	94
G264	Clean avionic equipment	93
H304	Adjust or align mockup shop replaceable units (SRUs)	92
G269	Inspect communications or navigations systems	89
H313	Remove or install mockup SRUs	89
H309	Inspect avionic system mockups	89
G302	Trace signals through circuits using schematics or wiring diagrams	87
G266	Fabricate coaxial or triaxial cables	87
H315	Repair mockup LRUs	87
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	87
H312	Remove or install mockup LRUs	86
E168	Locate maintenance information in TOs	86
E169	Locate part or stock numbers in technical publications	86
G265	Clean facilities	85
G284	Perform corrosion control on avionic equipment	84
G292	Remove or install common hardware, such as switches, knobs, or faceplates	83
I342	Bench check radio RTs	83
E170	Locate stock numbers on microfiche	82
G265	Clean facilities	82
I323	Adjust or align radio receiver/transmitters (RTs)	81
F237	Access core automated maintenance system (CAMS) menus and data screens	81
F250	Open or close CAMS	80
I390	Repair radio RTs	79
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	78

TABLE IIA

SHOP MAINTENANCE JOB
(ST0190)

GROUP SIZE: 362
PERCENT OF SAMPLE: 18%
PREDOMINANT GRADE: E-4/5

AVERAGE TICF: 80 MONTHS
AVERAGE TAFMS: 88 MONTHS

Average number of tasks performed: 221

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
H303	Adjust or align mockup LRUs	99
H305	Bench check mockup LRUs	98
G264	Clean avionic equipment	97
H304	Adjust or align mockup shop replaceable units (SRUs)	97
H313	Remove or install mockup SRUs	94
G269	Inspect communications or navigations systems	93
G266	Fabricate coaxial or triaxial cables	92
I342	Bench check radio RTs	92
H309	Inspect avionic system mockups	92
H315	Repair mockup LRUs	92
E169	Locate part or stock numbers in technical publications	91
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	91
H312	Remove or install mockup LRUs	91
J413	Adjust or align TACAN RTs	91
I323	Adjust or align radio receiver/transmitters (RTs)	90
J440	Bench check TACAN control boxes	90
I390	Repair radio RTs	90
G284	Perform corrosion control on avionic equipment	90
J445	Bench check TACAN RT units	89
G302	Trace signals through circuits using schematics or wiring diagrams	89
G265	Clean facilities	89
E168	Locate maintenance information in TOs	88
J506	Repair TACAN RT units	88
G292	Remove or install common hardware, such as switches, knobs, or faceplates	88
E170	Locte stock numbers on microfich	87
G268	Identify test equipment malfunctions	86
N788	Bench check interphone LRUs	85
F237	Access core automated maintenance system (CAMS) menus and data screens	84

TABLE IIB

SHOP FIRST-LINE SUPERVISOR JOB
(ST0189)

GROUP SIZE: 20
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-6/7

AVERAGE TICF: 155 MONTHS
AVERAGE TAFMS: 180 MONTHS

Average number of tasks performed: 141

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
F237	Access core automated maintenance system (CAMS) menus and data screens	95
F250	Open or close CAMS	95
C91	Inspect completed jobs	95
E169	Locate part or stock numbers in technical publications	95
F246	Create aircraft or support equipment maintenance discrepancies in CAMS	95
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	90
F244	Clear or closeout completed aircraft maintenance discrepancies in CAMS	90
E170	Locate stock numbers on microfiche	90
A5	Determine work priorities	85
F253	Perform CAMS inquiries for uncompleted maintenance event listings	85
E168	Locate maintenance information in TOs	85
C107	Write EPRs	85
A3	Coordinate work with other sections	85
E224	Process parts for turn-in to supply	85
B32	Counsel subordinates on personal or military-related problems	85
F254	Perform CAMS inquiries to monitor delayed discrepancies prior to, during, or after scheduling maintenance	80
E203	Make entries on AFTO Forms 781 series (AFORM Aircrew/Mission Flight Data Document)	80
E229	Tag or label equipment	80
E234	Verify D18 or M30 due-out reports	80
E208	Orient newly assigned personnel	80
F241	Change CAMS printer paper	80
F251	Perform CAMS inquiries for scheduled aircraft discrepancies	75
E233	Verify D04 supply registers	75
F239	Change CAMS errors noted during daily verification process	75
A27	Schedule work assignments	75

TABLE IIC

DEPOT/INTERMEDIATE-LEVEL MAINTENANCE FIRST-LINE SUPERVISOR JOB
(ST0208)

GROUP SIZE: 18
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-5

AVERAGE TICF: 107 MONTHS
AVERAGE TAFMS: 121 MONTHS

Average number of tasks performed: 128

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
H305	Bench check mockup LRUs	94
H303	Adjust or align mockup LRUs	94
F237	Access core automated maintenance system (CAMS) menus and data screens	89
I342	Bench check radio RTs	89
G264	Clean avionic equipment	89
H312	Remove or install mockup LRUs	89
E168	Locate maintenance information in TOs	83
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	83
I390	Repair radio RTs	83
D134	Instruct personnel on equipment maintenance or repair techniques	83
G269	Inspect communications or navigations systems	83
B34	Direct in-shop maintenance activities	83
E166	Inventory CTKs	83
D112	Conduct OJT	83
D117	Demonstrate operation of equipment	83
G284	Perform corrosion control on avionic equipment	83
F250	Open or close CAMS	83
H304	Adjust or align mockup shop replaceable units (SRUs)	83
G268	Identify test equipment malfunctions	83
A5	Determine work priorities	83
H313	Remove or install mockup SRUs	83
I323	Adjust or align radio receiver/transmitters (RTs)	78
G302	Trace signals through circuits using schematics or wiring diagrams	78
C107	Write EPRs	78
C92	Inspect consolidated tool kits (CTKs)	78
D118	Demonstrate procedures for locating technical information	78
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	78

TABLE IID

SPECIAL OPERATIONS COMPONENT REPAIR JOB
(ST0441)

GROUP SIZE: 14
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-4/5

AVERAGE TICF: 60 MONTHS
AVERAGE TAFMS: 85 MONTHS

Average number of tasks performed: 118

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
H312	Remove or install mockup LRUs	100
H303	Adjust or align mockup LRUs	100
H313	Remove or install mockup SRUs	100
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	100
H304	Adjust or align mockup shop replaceable units (SRUs)	100
G264	Clean avionic equipment	100
G287	Perform pressurization checks of avionic components	100
G272	Inspect or change desiccant crystals	100
G292	Remove or install common hardware, such as switches, knobs, or faceplates	100
K606	Bench check terrain following/terrain avoidance transmitters, other than for FLRs	93
K698	Repair terrain following/terrain avoidance transmitters, other than for FLRs	93
K603	Bench check terrain following/terrain avoidance power supply programmers	93
K597	Bench check terrain following/terrain avoidance computers, other than for FLRs	93
H305	Bench check mockup LRUs	93
K689	Repair terrain following/terrain avoidance computers, other than for FLRs	93
H315	Repair mockup LRUs	93
K688	Repair terrain following/terrain avoidance antenna receivers, other than for FLRs	93
K553	Adjust or align terrain following/terrain avoidance signal data converters (SDCs)	93
K601	Bench check terrain following/terrain avoidance indicators, other than for FLRs	93
E201	Make entries on AFTO Forms 349 (Maintenance Data Collection Record)	93
G286	Perform isochronal or phased inspections	93

TABLE IIE

STATION KEEPING EQUIPMENT (SKE) MAINTENANCE JOB
(ST0186)

GROUP SIZE: 14
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 42 MONTHS
AVERAGE TAFMS: 45 MONTHS

Average number of tasks performed: 136

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	100
G292	Remove or install common hardware, such as switches, knobs, or faceplates	100
F250	Open or close CAMS	100
H309	Inspect avionic system mockups	100
F255	Perform CAMS interface with base supply systems, such as checking parts status or ordering maintenance assets	100
G272	Inspect or change desiccant crystals	100
G264	Clean avionic equipment	93
H305	Bench check mockup LRUs	93
G302	Trace signals through circuits using schematics or wiring diagrams	93
G269	Inspect communications or navigations systems	93
H303	Adjust or align mockup LRUs	93
H315	Repair mockup LRUs	93
G265	Clean facilities	86
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	86
E169	Locate part or stock numbers in technical publications	86
E170	Locate stock numbers on microfiche	86
F244	Clear or closeout completed aircraft maintenance discrepancies in CAMS	86
H304	Adjust or align mockup shop replaceable units (SRUs)	86
E201	Make entries on AFTO Forms 349 (Maintenance Data Collection Record)	86
G298	Safety wire avionic system equipment	86
E200	Make entries on AFTO Forms 244 (Industrial/Support Equipment Record)	86
H313	Remove or install mockup SRUs	86

TABLE IIF

SEARCH WEATHER RADAR MAINTENANCE JOB
(ST0266)

GROUP SIZE: 13
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-3/4

AVERAGE TICF: 40 MONTHS
AVERAGE TAFMS: 44 MONTHS

Average number of tasks performed: 78

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
K595	Bench check search weather RT units	100
H305	Bench check mockup LRUs	100
K585	Bench check search weather antennas	100
H303	Adjust or align mockup LRUs	100
K535	Adjust or align search weather antennas	100
K687	Repair search weather RT units	92
K543	Adjust or align search weather RT units	92
F237	Access core automated maintenance system (CAMS) menus and data screens	92
G265	Clean facilities	92
H304	Adjust or align mockup shop replaceable units (SRUs)	92
G302	Trace signals through circuits using schematics or wiring diagrams	92
H309	Inspect avionic system mockups	92
K677	Repair search weather antennas	85
G264	Clean avionic equipment	85
H315	Repair mockup LRUs	85
I342	Bench check radio RTs	85
I390	Repair radio RTs	85
I323	Adjust or align radio receiver/transmitters (RTs)	85
E168	Locate maintenance information in TOs	77
E169	Locate part or stock numbers in technical publications	77
F250	Open or close CAMS	77
H313	Remove or install mockup SRUs	77
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	77
H311	Perform preventive maintenance inspections (PMIs) on peculiar test equipment for mockups	77

TABLE III

STAFF PERSONNEL CLUSTER
(ST0016)

GROUP SIZE: 348
PERCENT OF SAMPLE: 18%
PREDOMINANT GRADE: E-6/7

AVERAGE TICF: 155 MONTHS
AVERAGE TAFMS: 174 MONTHS

Average number of tasks performed: 62

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
A3	Coordinate work with other sections	72
A4	Determine requirements for resources, such as equipment, personnel, or supplies	66
B31	Conduct or participate in staff meetings	61
A5	Determine work priorities	60
B32	Counsel subordinates on personal or military-related problems	57
C68	Conduct self-inspections	54
E207	Operate mini- or microcomputers	50

TABLE IIIA

EXPEDITER JOB
(ST0148)

GROUP SIZE: 9
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-7

AVERAGE TICF: 185 MONTHS
AVERAGE TAFMS: 199 MONTHS

Average number of tasks performed: 23

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
B33	Direct flightline maintenance activities	100
A5	Determine work priorities	100
E154	Coordinate flightline maintenance with other activities	89
A3	Coordinate work with other sections	89
E212	Perform vehicle inspections using AF Forms 1800 (Operator's Inspection Guide and Trouble Report)	89
C107	Write EPRs	89
C89	Indorse enlisted performance reports (EPRs)	89
Q863	Perform expediter duties	78
B61	Supervise military personnel with AFSCs other than 455X2	67
C100	Provide technical assistance for job-related problems encountered by subordinates	67
A27	Schedule work assignments	56

TABLE IIIB

TOOL CRIB MONITOR JOB
(ST0131)

GROUP SIZE: 9
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-5/6

AVERAGE TICF: 111 MONTHS
AVERAGE TAFMS: 127 MONTHS

Average number of tasks performed: 64

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
E170	Locate stock numbers on microfiche	100
E169	Locate part or stock numbers in technical publications	100
E168	Locate maintenance information in TOs	100
E166	Inventory CTKs	89
E164	Inventory bench stock, equipment, or supplies	89
C92	Inspect consolidated tool kits (CTKs)	89
E193	Maintain supply control logs	89
E212	Perform vehicle inspections using AF Forms 1800 (Operator's Inspection Guide and Trouble Report)	89
E162	Forward TMDE to precision measurement equipment laboratory (PMELs)	78
E196	Maintain supply logs of ordered parts	78
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	78
E224	Process parts for turn-in to supply	78
E229	Tag or label equipment	67
E199	Maintain tool kit equipment component lists (ECLs)	67
G284	Perform corrosion control on avionic equipment	67
G264	Clean avionic equipment	67
G265	Clean facilities	67
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	67
D117	Demonstrate operation of equipment	67
E232	Verify due-in from maintenance (DIFM) document listings, such as R26 or D23 Reports	67
E233	Verify D04 supply registers	67
E200	Make entries on AFTO Forms 244 (Industrial/Support Equipment Record)	56
E182	Maintain custodian account/customer report listings (CA/CRLs)	56
E177	Maintain AFTO Forms 244 or 245 (Industrial/Support Equipment Record)	56
B50	Implement test measurement and diagnostic equipment (TMDE) monitoring programs	56

TABLE IIIC

DUE-IN-FROM MAINTENANCE (DIFM) MONITOR JOB
(ST0159)

GROUP SIZE: 12
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-4/5

AVERAGE TICF: 117 MONTHS
AVERAGE TAFMS: 153 MONTHS

Average number of tasks performed: 79

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
F237	Access core automated maintenance system (CAMS) menus and data screens	100
E196	Maintain supply logs of ordered parts	100
E231	Verify daily supply document listings	100
E194	Maintain supply document listings	100
E233	Verify D04 supply registers	100
E234	Verify D18 or M30 due-out reports	100
E224	Process parts for turn-in to supply	92
E193	Maintain supply control logs	92
E232	Verify due-in from maintenance (DIFM) document listings, such as R26 or D23 Reports	92
F250	Open or close CAMS	92
F241	Change CAMS printer paper	92
F255	Perform CAMS interface with base supply systems, such as checking parts status or ordering maintenance assets	83
E225	Request supply follow-ups on supplies or parts	83
F245	Conduct CAMS training	83
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	75
F253	Perform CAMS inquiries for uncompleted maintenance event listings	75
F239	Change CAMS errors noted during daily verification process	67
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	67
F244	Clear or closeout completed aircraft maintenance discrepancies in CAMS	67
F243	Change CAMS workcenter narratives	67
C107	Write EPRs	67
E170	Locate stock numbers on microfiche	67
F242	Change CAMS work unit codes	67
E229	Tag or label equipment	67

TABLE IIID

TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT (TMDE) MONITOR JOB
(ST0212)

GROUP SIZE: 5
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 92 MONTHS
AVERAGE TAFMS: 96 MONTHS

Average number of tasks performed: 29

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
B50	Implement test measurement and diagnostic equipment (TMDE) monitoring programs	100
E162	Forward TMDE to precision measurement equipment laboratory (PMELs)	100
E197	Maintain TMDE schedules	100
E177	Maintain AFTO Forms 244 or 245 (Industrial/Support Equipment Record)	100
E200	Make entries on AFTO Forms 244 (Industrial/Support Equipment Record)	100
A3	Coordinate work with other sections	80
A25	Schedule inspections	80
E166	Inventory CTKs	80
E169	Locate part or stock numbers in technical publications	80
A4	Determine requirements for resources, such as equipment, personnel, or supplies	80
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	80
A5	Determine work priorities	60
C92	Inspect consolidated tool kits (CTKs)	60
F237	Access core automated maintenance system (CAMS) menus and data screens	60
E170	Locate stock numbers on microfiche	60
E168	Locate maintenance information in TOs	60
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	60

TABLE IIIE

QUALITY ASSURANCE INSPECTOR JOB
(ST0085)

GROUP SIZE: 21
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-6

AVERAGE TICF: 133 MONTHS
AVERAGE TAFMS: 155 MONTHS

Average number of tasks performed: 59

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
C94	Inspect maintenance activities	100
C97	Investigate accidents or incidents	95
C91	Inspect completed jobs	86
C92	Inspect consolidated tool kits (CTKs)	81
G269	Inspect communications or navigations systems	76
C64	Conduct ground safety inspections	76
G271	Inspect equipment shock mounts	76
F237	Access core automated maintenance system (CAMS) menus and data screens	76
C68	Conduct self-inspections	76
G272	Inspect or change desiccant crystals	76
C95	Inspect reported discrepancies	71
B38	Direct or implement quality control or quality assurance programs	67
C93	Inspect facilities or work areas for condition or appearance	67
C102	Review TOs	67
F238	Analyze CAMS data	67
G273	Inspect radomes for delamination or cracks	67
F250	Open or close CAMS	67
F251	Perform CAMS inquiries for scheduled aircraft discrepancies	67
C84	Evaluate suggestions	67
E212	Perform vehicle inspections using AF Forms 1800 (Operator's Inspection Guide and Trouble Report)	67
B31	Conduct or participate in staff meetings	67
C100	Provide technical assistance for job-related problems encountered by subordinates	62
E168	Locate maintenance information in TOs	62
C81	Evaluate safety or security programs	57
E207	Operate mini- or microcomputers	57
C75	Evaluate inspection reports or procedures	57

TABLE IIIF

FLIGHTLINE SUPERVISOR JOB
(ST0166)

GROUP SIZE: 32
PERCENT OF SAMPLE: 2%
PREDOMINANT GRADE: E-7

AVERAGE TICF: 206 MONTHS
AVERAGE TAFMS: 221 MONTHS

Average number of tasks performed: 52

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
B32	Counsel subordinates on personal or military-related problems	97
C107	Write EPRs	91
A4	Determine requirements for resources, such as equipment, personnel, or supplies	88
B61	Supervise military personnel with AFSCs other than 455X2	84
A3	Coordinate work with other sections	84
B31	Conduct or participate in staff meetings	81
A26	Schedule leaves, passes, or temporary duty (TDY) trips	78
C93	Inspect facilities or work areas for condition or appearance	78
B54	Interpret policies, directives, or procedures for subordinates	75
B60	Supervise Communication/Navigation Systems Technicians (AFSC 45572)	72
C89	Indorse enlisted performance reports (EPRs)	72
A1	Assign personnel to duty positions	72
A5	Determine work priorities	69
C87	Evaluate work schedules	69
C83	Evaluate subordinates' compliance with work standards	66
C82	Evaluate subordinates' compliance with performance standards	66
B59	Supervise Communication/Navigation Systems Specialists (AFSC 45552)	66
C66	Conduct performance feedback (PFW) sessions	66
A27	Schedule work assignments	63
B33	Direct flightline maintenance activities	60
A21	Prepare duty rosters	60
C100	Provide technical assistance for job-related problems encountered by subordinates	60
E208	Orient newly assigned personnel	56
F250	Open or close CAMS	56
C62	Analyze workload requirements	50
C74	Evaluate individuals for promotion, demotion, or reclassification	50

TABLE IIIG

SHOP SUPERVISOR JOB
(ST0185)

GROUP SIZE: 83
PERCENT OF SAMPLE: 4%
PREDOMINANT GRADE: E-7

AVERAGE TICF: 172 MONTHS
AVERAGE TAFMS: 192 MONTHS

Average number of tasks performed: 105

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
B32	Counsel subordinates on personal or military-related problems	98
A3	Coordinate work with other sections	96
C66	Conduct performance feedback (PFW) sessions	96
C107	Write EPRs	95
B54	Interpret policies, directives, or procedures for subordinates	94
A4	Determine requirements for resources, such as equipment, personnel, or supplies	94
C82	Evaluate subordinates' compliance with performance standards	93
C83	Evaluate subordinates' compliance with work standards	93
A5	Determine work priorities	92
C100	Provide technical assistance for job-related problems encountered by subordinates	90
C68	Conduct self-inspections	84
B31	Conduct or participate in staff meetings	83
C93	Inspect facilities or work areas for condition or appearance	81
A26	Schedule leaves, passes, or temporary duty (TDY) trips	81
A27	Schedule work assignments	78
A13	Establish performance standards	78
C87	Evaluate work schedules	78
A10	Develop work methods or procedures	77
E208	Orient newly assigned personnel	77
C86	Evaluate use of resources, such as equipment, supplies, or workspace	75
A21	Prepare duty rosters	74
E230	Type correspondence	72
A14	Establish personnel requirements	72
A9	Develop records or maintenance or disposition files	71
A28	Write job descriptions	71
C62	Analyze workload requirements	71
D116	Counsel trainees on training progress	70
B48	Implement safety or security programs or procedures	70

TABLE IIIH

PROGRAM MANAGEMENT JOB
(ST0248)

GROUP SIZE: 8
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-6

AVERAGE TICF: 182 MONTHS
AVERAGE TAFMS: 207 MONTHS

Average number of tasks performed: 43

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
A5	Determine work priorities	100
A4	Determine requirements for resources, such as equipment, personnel, or supplies	100
A3	Coordinate work with other sections	100
A14	Establish personnel requirements	100
A13	Establish performance standards	100
A20	Prepare briefings	100
A27	Schedule work assignments	100
A10	Develop work methods or procedures	88
A29	Write staff studies, surveys, or special reports, other than training reports	88
A26	Schedule leaves, passes, or temporary duty (TDY) trips	88
B32	Counsel subordinates on personal or military-related problems	88
A15	Establish requirements for maintenance of equipment or facilities	75
A6	Develop budget or financial requirements	75
A9	Develop records or maintenance or disposition files	75
A12	Establish organizational policies, office instructions (OIs), or standing operating procedures (SOPs)	75
A21	Prepare duty rosters	75
A7	Develop cost-reduction programs	75
B54	Interpret policies, directives, or procedures for subordinates	75
B31	Conduct or participate in staff meetings	75
A18	Plan safety or security programs	75
A11	Draft budget requirements	63
A16	Plan layouts of facilities	63
C107	Write EPRs	63
C82	Evaluate subordinates' compliance with performance standards	63
C83	Evaluate subordinates' compliance with work standards	63
A8	Develop organizational charts	63
B61	Supervise military personnel with AFSCs other than 455X2	50

TABLE IIII

SPECIAL COMMUNICATIONS SUPERVISOR JOB
(ST0206)

GROUP SIZE: 9
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-6

AVERAGE TICF: 117 MONTHS
AVERAGE TAFMS: 150 MONTHS

Average number of tasks performed: 137

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
I367	Operationally check voice SATCOM systems	100
I356	Isolate malfunctions in installed voice SATCOM systems	100
I326	Adjust or align voice satellite communications (SATCOM) interface modules	100
I361	Load or zeroize secure voice system codes	100
I393	Repair voice SATCOM control boxes	100
A4	Determine requirements for resources, such as equipment, personnel, or supplies	100
I324	Adjust or align secure voice system encryption units	90
I323	Adjust or align radio receiver/transmitters (RTs)	90
I347	Bench check voice SATCOM control boxes	90
I345	Bench check secure voice system encryption units	90
I344	Bench check secure voice system controls	90
C105	Test or evaluate new or modified equipment	90
I394	Repair voice SATCOM interface modules	90
I390	Repair radio RTs	90
G266	Fabricate coaxial or triaxial cables	90
E168	Locate maintenance information in TOs	90
A3	Coordinate work with other sections	90
D117	Demonstrate operation of equipment	90
A5	Determine work priorities	90
C107	Write EPRs	90
I392	Repair secure voice system encryption units	78
I391	Repair secure voice system controls	78
I354	Isolate malfunctions in installed secure voice systems	78
I362	Operate associated systems while checking radio systems	78
G265	Clean facilities	78
E230	Type correspondence	78
I348	Bench check voice SATCOM interface modules	78
I319	Adjust or align radio control units	78

TABLE IIIJ

MATERIAL DEFICIENCY JOB
(ST0194)

GROUP SIZE: 8
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-7

AVERAGE TICF: 180 MONTHS
AVERAGE TAFMS: 187 MONTHS

Average number of tasks performed: 33

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
B31	Conduct or participate in staff meetings	100
A5	Determine work priorities	100
E207	Operate mini- or microcomputers	88
C102	Review TOs	88
E168	Locate maintenance information in TOs	88
E230	Type correspondence	88
A3	Coordinate work with other sections	88
A20	Prepare briefings	88
A4	Determine requirements for resources, such as equipment, personnel, or supplies	75
A29	Write staff studies, surveys, or special reports, other than training reports	63
C65	Conduct in-progress reviews of preliminary TOs	63
E169	Locate part or stock numbers in technical publications	63
A10	Develop work methods or procedures	63
A9	Develop records or maintenance or disposition files	63
C84	Evaluate suggestions	63
B54	Interpret policies, directives, or procedures for subordinates	63
E198	Maintain TO or technical publication files	50
C69	Conduct small computer inspections	50
A26	Schedule leaves, passes, or temporary duty (TDY) trips	50

TABLE IIIK

TECHNICAL ORDER MAINTENANCE JOB
(ST0132)

GROUP SIZE: 5
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-5/6

AVERAGE TICF: 94 MONTHS
AVERAGE TAFMS: 150 MONTHS

Average number of tasks performed: 18

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
E198	Maintain TO or technical publication files	100
E176	Maintain AFTO Forms 110 and 110A (Technical Order/CPIN Distribution Record)	100
C102	Review TOs	80
E207	Operate mini- or microcomputers	80
C68	Conduct self-inspections	60
C66	Conduct performance feedback (PFW) sessions	60
E230	Type correspondence	60
C107	Write EPRs	60

TABLE IIIL

PROGRAMS AND MOBILITY MANAGEMENT JOB
(ST0201)

GROUP SIZE: 13
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-7

AVERAGE TICF: 206 MONTHS
AVERAGE TAFMS: 214 MONTHS

Average number of tasks performed: 18

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
A29	Write staff studies, surveys, or special reports, other than training reports	92
B31	Conduct or participate in staff meetings	92
A20	Prepare briefings	92
A4	Determine requirements for resources, such as equipment, personnel, or supplies	85
A3	Coordinate work with other sections	85
A6	Develop budget or financial requirements	85
A9	Develop records or maintenance or disposition files	62
A11	Draft budget requirements	54

TABLE IIIM

RESIDENT COURSE INSTRUCTOR JOB
(ST0114)

GROUP SIZE: 37
PERCENT OF SAMPLE: 2%
PREDOMINANT GRADE: E-4/5

AVERAGE TICF: 113 MONTHS
AVERAGE TAFMS: 134 MONTHS

Average number of tasks performed: 47

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
D114	Conduct resident course classroom training	97
D117	Demonstrate operation of equipment	97
D108	Administer or score tests	95
D139	Prepare lesson plans	90
D116	Counsel trainees on training progress	90
D134	Instruct personnel on equipment maintenance or repair techniques	86
D118	Demonstrate procedures for locating technical information	86
D149	Write test questions	84
D123	Develop resident course materials	81
D124	Develop training aids	68
D130	Evaluate progress of resident course students	62
D137	Maintain training records, charts, or graphs	60
B32	Counsel subordinates on personal or military-related problems	60
D122	Develop course curricula, plans of instruction (POIs), or specialty training standards (STSs)	57
E200	Make entries on AFTO Forms 244 (Industrial/Support Equipment Record)	57
G265	Clean facilities	51
G302	Trace signals through circuits using schematics or wiring diagrams	51

TABLE IIIN

FIELD TRAINING DETACHMENT (FTD) INSTRUCTOR JOB
(GP0145)

GROUP SIZE: 33
PERCENT OF SAMPLE: 2%
PREDOMINANT GRADE: E-5/6

AVERAGE TICF: 144 MONTHS
AVERAGE TAFMS: 153 MONTHS

Average number of tasks performed: 132

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
D117	Demonstrate operation of equipment	97
D139	Prepare lesson plans	97
D134	Instruct personnel on equipment maintenance or repair techniques	91
D118	Demonstrate procedures for locating technical information	88
G302	Trace signals through circuits using schematics or wiring diagram	82
D116	Counsel trainees on training progress	82
C68	Conduct self-inspections	82
E168	Locate maintenance information in TOs	79
D124	Develop training aids	79
D131	Evaluate training methods, techniques, or programs	76
D108	Administer or score tests	76
D141	Procure training aids, space, or equipment	76
H305	Bench check mockup LRUs	73
D149	Write test questions	73
D122	Develop course curricula, plans of instruction (POIs), or specialty training standards (STSs)	70
H305	Bench check mockup LRUs	70
D136	Maintain training equipment	70
H303	Adjust or align mockup LRUs	70
C100	Provide technical assistance for job-related problems encountered by subordinates	67
H304	Adjust or align mockup shop replaceable units (SRUs)	67
B32	Counsel subordinates on personal or military-related problems	67
C82	Evaluate subordinates' compliance with performance standards	64
C102	Review TOs	64
I364	Operationally check radio systems	64
G269	Inspect communications or navigations systems	64
E200	Make entries on AFTO Forms 244 (Industrial/Support Equipment Record)	64
A4	Determine requirements for resources, such as equipment, personnel, or supplies	61
I362	Operate associated systems while checking radio systems	61

TABLE IV

BENCH CHECK MONITOR JOB
(ST0251)

GROUP SIZE: 8
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 18 MONTHS
AVERAGE TAFMS: 20 MONTHS

Average number of tasks performed: 45

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G269	Inspect communications or navigations systems	100
G264	Clean avionic equipment	100
G292	Remove or install common hardware, such as switches, knobs, or faceplates	100
E168	Locate maintenance information in TOs	88
G265	Clean facilities	88
F237	Access core automated maintenance system (CAMS) menus and data screens	88
I342	Bench check radio RTs	88
I390	Repair radio RTs	88
E169	Locate part or stock numbers in technical publications	88
H303	Adjust or align mockup LRUs	88
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	75
I323	Adjust or align radio receiver/transmitters (RTs)	75
H305	Bench check mockup LRUs	75
E170	Locate stock numbers on microfiche	75
H304	Adjust or align mockup shop replaceable units (SRUs)	75
J445	Bench check TACAN RT units	75
H313	Remove or install mockup SRUs	63
H309	Inspect avionic system mockups	63
F250	Open or close CAMS	63
G284	Perform corrosion control on avionic equipment	63
G302	Trace signals through circuits using schematics or wiring diagrams	63
E201	Make entries on AFTO Forms 349 (Maintenance Data Collection Record)	63
H315	Repair mockup LRUs	63
N788	Bench check interphone LRUs	50
H312	Remove or install mockup LRUs	50
N797	Remove or install interphone system SRUs	50
F253	Perform CAMS inquiries for uncompleted maintenance event listings	50
F255	Perform CAMS interface with base supply systems, such as checking status or ordering maintenance assets part	50

TABLE V

AIRLIFT CONTROL ELEMENT JOB
(ST0219)

GROUP SIZE: 7
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 36 MONTHS
AVERAGE TAFMS: 37 MONTHS

Average number of tasks performed: 34

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
E229	Tag or label equipment	100
E170	Locate stock numbers on microfiche	100
E202	Make entries on AFTO Forms 350 (Reparable Item Processing Tag)	100
E169	Locate part or stock numbers in technical publications	100
E168	Locate maintenance information in TOs	100
E224	Process parts for turn-in to supply	100
E207	Operate mini- or microcomputers	100
E205	Make entries on supply turn-in or issue forms, such as AF Forms 2005 or DD Forms 1150	86
E164	Inventory bench stock, equipment, or supplies	86
E166	Inventory CTKs	71
E222	Prepare supplies or equipment for storage or use	71
G266	Fabricate coaxial or triaxial cables	71
E212	Perform vehicle inspections using AF Forms 1800 (Operator's Inspection Guide and Trouble Report)	71
G267	Fabricate multiple wire cables	71
G283	Operate powered aerospace ground equipment (AGE), such as power units, heaters, or light carts	71
E211	Perform operator maintenance on vehicles	71
G269	Inspect communications or navigations systems	57
E189	Maintain physical security of COMSEC equipment or items, such as secure voice or related publications	57
G302	Trace signals through circuits using schematics or wiring diagrams	57
A3	Coordinate work with other sections	57

TABLE VI

MAINTENANCE ADMINISTRATION JOB
(ST0242)

GROUP SIZE: 26
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 85 MONTHS
AVERAGE TAFMS: 102 MONTHS

Average number of tasks performed: 26

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

	REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
F237	Access core automated maintenance system (CAMS) menus and data screens	96
F250	Open or close CAMS	96
F241	Change CAMS printer paper	96
F246	Create aircraft or support equipment maintenance discrepancies in CAMS	81
F238	Analyze CAMS data	77
F242	Change CAMS work unit codes	73
F251	Perform CAMS inquiries for scheduled aircraft discrepancies	69
F239	Change CAMS errors noted during daily verification process	69
F243	Change CAMS workcenter narratives	69
E151	Assign job control numbers	65
F258	Schedule aircraft maintenance discrepancies in CAMS	65
F261	Verify accuracies of daily inputs in CAMS	65
F253	Perform CAMS inquiries for uncompleted maintenance event listings	62
F240	Change CAMS job standard narratives	62
F252	Perform CAMS inquiries for training status	62
E207	Operate mini- or microcomputers	58
F247	Defer aircraft maintenance discrepancies in CAMS	58
A3	Coordinate work with other sections	58
E210	Perform aircrew debriefs	54
F257	Reschedule aircraft maintenance discrepancies in CAMS	54

TABLE VII

RESOURCE MANAGEMENT JOB
(ST0163)

GROUP SIZE: 7
PERCENT OF SAMPLE: Less than 1%
PREDOMINANT GRADE: E-7

AVERAGE TICF: 214 MONTHS
AVERAGE TAFMS: 221 MONTHS

Average number of tasks performed: 25

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
A11	Draft budget requirements	100
A6	Develop budget or financial requirements	100
E181	Maintain cost center accounts	100
C72	Evaluate budget or financial requirements	86
A7	Develop cost-reduction programs	86
E233	Verify D04 supply registers	86
E234	Verify D18 or M30 due-out reports	86
E207	Operate mini- or microcomputers	71
E231	Verify daily supply document listings	57
A20	Prepare briefings	57
A4	Determine requirements for resources, such as equipment, personnel, or supplies	57
B46	Implement cost-reduction programs	57
C68	Conduct self-inspections	57